GERMANIC PHILOLOGY

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GERMANIC PHILOLOGY

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GERMANIC PHILOLOGY

BY

DR. RICHARD LOEWE

TRANSLATED AND EDITED BY

J. D. JONES, PH.D.(BERLIN), B.A.(LOND.)

LECTURER IN ENGLISH IN THE UNIVERSITY OF SHEFFIELD

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ABBREVIATIONS

Germ. = Germanic or Teutonic.
Gk. = Greek.
Goth. = Gothic.
Ind.-Germ. = Indo-Germanic or Indo-European.
Lat. = Latin.
Lett. = Lettic.
Lith. = Lithuanian.
M.H.G. = Middle High German.
M.L.G. = Middle Low German.
N.H.G. = Modern High German.
N.L.G. = Modern Low German (Plattdeutsch).
Nor. = Norse or Scandinavian.
O.Bct. = Old Bactrian.
O.Bg. = Old Bulgarian.
O.E. = Old English or Anglo-Saxon.
O.Fris. = Old Frisian.
O.H.G. = Old High German.
O.Ind. = Old Indian or Sanskrit.
O.Ir. = Old Irish.
O.M.G. = Old Middle German.
O.N. = Old Norse or Old Icelandic.
O.S. = Old Saxon.
O. Upper G. = Old Upper German.
P.Germ. = Primitive Germanic or Teutonic.
Prim. Nor. or Prim. O.N. = Primitive Norse or Scandinavian.
W.Germ. = West Germanic.

SIGNS

þ='th' in English 'think.'

ð='th' in English 'they.'

ȝ=a front continuant like 'y' in Engl. 'yes.'

'z'=(exc. in High German in which it has either the value of 's' or of 'ts') 's' in 'rose' or 'z' in 'freeze.'

O.N. 'v'=Engl. 'w.'

O.Bg. 'š'=Engl. 'sh.'

O.Ind. 'ś' and 'ṣ' are variations of 'sh.'

O.Ind. 'j'='j' in Engl. 'judge.'

O.Ind. 'c'='ch' in Engl. 'child.'

O.Ind. 'y'='y' in Engl. 'year.'

Goth. 'ei'='ī' in Engl. 'machīne.'

O.E. 'æ'='a' in Engl. 'man.'

The sign ′ generally denotes the syllable bearing the chief accent; in O.E., O.N., O.Norw., however, it marks a long vowel, which is denoted by – in the other languages.

Other signs of pronunciation will be explained in the text itself, especially in the sections on sound-shifting.

* Prefixed to any word means that it is a hypothetical form.

GERMANIC PHILOLOGY

PART I

INTRODUCTION

I. THE EXTENT AND THE PROBLEMS OF GERMANIC PHILOLOGY

GERMANIC philology is the explanation of all the phenomena of the Germanic languages, i.e. of German and of those languages, such as English and Icelandic, which are most closely related to it. According to the evidence of their literatures, the Germanic languages have changed in the course of time; they once stood much nearer to one another than they do to-day. From this the conclusion has been drawn that formerly they in fact constituted a uniform language which has even been reconstructed and named 'Primitive Germanic.' The Germanic languages, however, stand in a distant relationship to most European and to several Asiatic languages, all of which it is the custom to embrace under the term 'Indo-Germanic.' By comparison of the individual Indo-Germ. languages, which, like P.Germ. itself, have been partly inferred from the younger speeches, even the original Indo-Germ. speech has been reconstructed.

As the business of tracing the development of the

individual Germanic languages belongs to special provinces, the task of Germanic philology in the narrower sense of the term consists in the reconstruction and elucidation of P.Germ. For this it will be necessary to compare the individual Germanic languages, on the one hand, with each other in their oldest transmitted form, and, on the other hand, with the rest of the Indo-Germ. branches in *their* oldest dialects.

II. INDO-GERMANIC LANGUAGES AND THE GERMANIC DIALECTS

The Indo-Germ. branches are: Aryan, Armenian, Greek, Albanian, Italic, Keltic, Germanic, Baltic-Slavonic. Aryan embraces, amongst others, Indian and Iranian; of the former, Old Indian (Sanskrit), and of the latter, Old Bactrian are alone taken into consideration here. The Italic family consists of Latin, Umbrian, and Oscan; the Keltic of Old Irish and Cymric. The Baltic-Slavonic group is divided into the Baltic (Lithuanian, Lettic, and Old Prussian) and the Slavonic, of which Old Bulgarian appears in the most ancient form.

The better known dialects of Germanic are:—

1. Gothic. Almost the only remains that we possess of this are parts of the translation of the Bible by Ulfilas (*c.* A.D. 350). It ceased to exist with the Gothic people.

2. The Northern, Norse, or North Germanic, i.e. the language of Scandinavia, Denmark, and Iceland. Until about A.D. 700 this is represented only in runes, of which the earliest dates from A.D. 300; the language in this period is known as Primitive Norse. From 700 to 1530 (i.e. until the Reforma-

tion) the several Northern dialects are included under the term Old Norse, and from 1530 onwards Modern Norse. The different branches of Old Norse are known as Old Icelandic, Old Norwegian, Old Swedish, Old Danish, the decendants of these as Modern Icelandic, etc.

3. English, which has been known since about A.D. 600. Until *c.* 1150 it is known as Anglo-Saxon or Old English; from 1150 to 1500 as Middle English, and from 1500 onwards as Modern English.

4. Frisian, which has been known since the thirteenth century; it is called Old Frisian till about 1600, and from 1600, Modern Frisian.

5. Low German (Low Saxon), which from about 800 to 1100 is known as Old Saxon; from 1100 to 1600 (i.e. until the end of Low German literature) as Middle Low German, and from 1600 onwards as Modern Low German or Plattdeutsch.

6. Dutch, which from about 800 to 1200 is known as Old Low Franconian, from 1200 to 1500 as Middle Dutch, and from 1500 onwards as Modern Dutch.

7. High German, which from 740 to 1100 is known as Old High German, from 1100 to about 1500 (i.e. to the time of the Reformation) as Middle High German, and from 1500 onwards as Modern High German.

Amongst the Germanic languages which had literatures of their own are to be reckoned some of which only single words (mostly Proper names) have come

down through Latin and Greek. These are Langobardian, Burgundian, and Wandalian; i.e. the languages of people who disappeared early. On the other hand, Crimean Gothic (in the South-West of the Crimea) only vanished in modern times; the Fleming Busbeck noted about eighty words of it in 1560.

III. LINGUISTIC CHANGES AND THEIR CAUSES

Changes in languages occur partly in sound-forms and partly in the meaning of their words. If the meaning does not undergo a change along with the sound-form, we speak of a sound-change; if it does, we speak of a form-change; when only the meaning undergoes alteration, we speak of a change in meaning.

There has been, for example, form-change when we say 'wir sprangen,' 'wir halfen,' in N.H.G. for M.H.G. 'wir sprungen,' 'wir hulfen,' as generally M.H.G. 'u' has been replaced by 'a' only in the preterite; in other cases 'u' has remained, e.g. in 'uns,' 'ulme,' 'butter.' The forms 'halfen,' 'sprangen,' were formed because 'half,' 'sprang,' had 'a' in the singular and other preterites, e.g. 'ich rief,' 'wir riefen,' had the same vowel in the singular and plural already in M.H.G. The reverse has been the case with 'a' in O.H.G., e.g. 'magum' (we can), which was already in the O.H.G. period replaced by 'mugum' because verbs which were inflected in the singular like 'mag' (e.g. 'darf,' 'darft,' 'darf,' like 'mag.' 'maht,' 'mag') formed their plural with 'u,' e.g. 'durfum.' This commonest kind of form-change is called analogy-formation.

Sound-change, on the other hand, is illustrated by the following: Every M.H.G. 'uo' has become 'ū' in

N.H.G., thus 'buoch' has become 'buch' and 'wir truogen,' 'wir trugen.' When the sound-change, as in these instances, is not conditional on other sounds in the immediate neighbourhood, the change is said to be spontaneous. But if a sound only undergoes a definite change when it is in the neighbourhood of, or combined with, fixed other sounds, we speak of a combinative sound-change. Thus, e.g. M.H.G. 's' has in general remained 's' in N.H.G., as in 'sinken,' 'hase,' 'nest'; but it has become 'sch' when it was initial and followed by 'l,' 'm,' 'n,' or 'w.' Therefore 'slāfen' became 'schlāfen'; 'smelzen,' 'schmelzen'; 'snē,' 'schnee'; 'swarz,' 'schwarz.'

The most essential cause of linguistic changes lies in hereditary transmission from generation to generation. The child learning to speak includes in a word it has acquired things similar to what this word denotes: thus it comes to call 'a cap,' 'a hat'; or 'a chair,' 'a bench.' If, therefore, several children in mutual intercourse accidentally agreed on certain ways of conveying their meaning, they can preserve these into a later generation, and even bring them into use among other people.

From the child-speech arise all analogy-formations in the case of common words. A child that forms 'gedenkt' on the analogy of 'geliebt' (loved) from 'lieben' (love) or 'gemacht' (made) from 'machen' (make), etc., uses this form alone for a long time, until it has learnt 'gedacht' (thought), while a grown-up person only in isolated cases at most makes a slip and says 'gedenkt' for 'gedacht.' When, therefore, 'gedenkt' is to-day used for 'gedacht' in Swabian, the explanation is to be sought in the fact that some children became agreed in this extremely common analogy-formation in

German child-speech, clung to it, and handed it on to others.

Finally, as regards sound-change, it has been observed in certain districts that all the young people up to a certain age pronounce certain sounds and combinations of sounds differently from their elders. Therefore sound-change arises in the child-speech just as change in meaning and form. It is to a certain extent an accident what sound-changes, heard already in the child-speech, form themselves into a sound-law in a dialect. Although all the many variations in sound in the child-speech do not become sound-changes in the fixed language, still some of them do, as, e.g. the substitution of 's' for 'š' ('sch').

The frequent sound-changes in the language of children, moreover, sometimes give rise to the assimilation of consonants with other consonants not in their immediate neighbourhood. Thus, e.g. has arisen the O.N. 'ulfalde' (camel) from *'ulfande' (cf. Goth. 'ulbandus,' O.E. 'olfend,' M.H.G. 'olbente'). These sound-changes in the child-speech still oftener give rise to metathesis of neighbouring and non-neighbouring consonants, as, e.g. O.E. 'æps' from 'æsp' ('aspen'), O.E. 'weler' (lip) from *'werel' (Goth. 'waírilō'). While children very often regularly use such forms instead of those which have been handed down to them, these occur only in isolated cases among adults as slips. Other sound-variations among children only persist now and then in those cases in which, in addition to the difficulties which have caused the variations, others came into play. Thus the very common substitution of 't' for 'k' in child-speech occurs hardly anywhere in the fixed speeches: still,

even in these 'k' has been sometimes replaced by 't,' when the difficulty was increased by a second 'k' or a kindred 'g' in the same word: thus in Italian, 'otriculi' from Latin 'ocriculum'; Italian 'stinco' (ham) from O.H.G. 'skinko'; O.N. 'tyggva' (chew) from *'kyggva.'

IV. THE PLACE OF GERMANIC AMONG THE INDO-GERMANIC LANGUAGES

The home of the Indo-Germ. mother speech and of the people who spoke it has not hitherto been definitely located; still it cannot have been situated very far from Babylon, as the Indo-Germ. decadal system of counting bears obvious traces of the influence of the sexagesimal system of the Babylonians.

The Indo-Germ. languages fall into two groups, which are distinguished as the 'centum'-languages ('c' to be pronounced 'k') and the 'satem'-languages. The first group includes Greek, Italic, Keltic and Germanic; the second Aryan, Armenian, Albanian and Baltic-Slavonic. The second group diverged from the first in that it introduced two innovations; (1) it changed the palatal stop 'k' (front 'k' sound as in English 'kin') into a hiss-sound ('s'), and (2) dropped the lip-rounding in the lip-velar stop (i.e. the back 'k'-sounds as in English 'cook,' which were combined with lip-rounding). Thus Indo-Germ. *'$\hat{\text{k}}$m̥tóm' ('$\hat{\text{k}}$' = front 'k') = 'hundred,' Gk. 'ἑ-κατόν,' Lat. 'centum,' O.Ir. 'cét' ('c' = 'k'), Goth. 'hund' (Germanic 'h' from 'k'), but O.Ind. 'śatám,' O.Bct 'satem,' Lith. 'szim̃tas.' To the Indo-Germ. interrogative stem *'kᵛo-,' *'kᵛā-,' *'kᵛi-' ('kᵛ' = lip-velar 'k') belong Gk. 'πό-θεν' = 'whence' (the lip-sound 'p' can have sprung only from a 'k' with

lip-rounding), Lat. 'qui'; Welsh 'pwy,' = who, what, Goth. 'hʷ as' = who ('hʷ' is 'h' with lip-rounding); but O.Ind. 'ká-s' = who, Alb. 'kɛ' = whom, Lith. 'kà-s' = who, O.Bg. 'kŭ-to' = who.

If Greek is taken as a starting-point, it will be seen that the 'centum'-languages are spoken in West Europe and the 'satem'-ones in East Europe and Asia. The fact that the 'satem'-languages have for the most part been neighbours in historical times, fits in with their assumed prehistoric relations, as common innovations could naturally only spread over a connected area. If the West-European languages along with Greek have not shared either the one or the other innovation of the East-European and Asiatic, it is obvious that they were separated from these by a boundary: it may have been either a somewhat sharp political boundary (possibly also one fixed by nature) such as existed among the East-European-Asiatic peoples themselves, or perhaps non-Indo-Germanic tribes had here forced themselves between the West-European and East-European-Asiatic peoples. The latter could have been brought about by the migration of a part of the Indo-Germans from their original home into West Europe. The tribes who spoke the 'satem'-tongues may, on the other hand, have spread more gradually.

The only innovation which has affected all the 'centum'-languages and distinguishes them from the 'satem'-group is the fusion of the palatal stops with the velar, i.e. with the back 'k'-sounds without lip-rounding, which were even in the 'centum-' as little changed as in the 'satem'-languages. Certain members of the 'centum'-group, however, show further points of agreement with one another. If in this respect we

take the Germanic and Italic groups into consideration, we find that the number of words common to them is much greater than that which is common to either of these and anyone of the 'satem'-group; in fact, greater than that which the Germanic and Greek share; while the words specially common to Germanic and Keltic form, as we shall see, a peculiar case. Now it cannot well have been a mere accident that the Germanic and Italic tribes have preserved the words under consideration, rather does it seem that there must once have existed between them a close intercourse based on proximity of abode, perhaps even on political unity. As, among the words common to the Germanic and Italic, the number of the verbs is especially large [e.g. Goth. 'þahan' = Lat. 'tacēre,' Goth. 'ana-silan' = Lat. 'silēre,' Goth. 'tiuhan' = Lat. 'dūcere,' O.N. 'berja' = Lat. 'ferīre,' O.H.G. 'watan' = Lat. 'vādere,' O.H.G. 'sinnan' = Lat. 'sentīre,' O.H.G. 'hlamōn' (='roar, rage') = Lat. 'clamāre'], there can be here, for the most part, no question of borrowing, but chiefly only of a common preservation of an old and common creation of words. In addition to this, there are two points of agreement in word-building: the formation of distributives by affixing '-no-' to numeral adverbs (e.g. Lat. 'bīnī' from *'bis-nī' from *'duis-no-i' = O.N. 'tuenner' for *'tuenne' from *'twiznai' from *'duis-no-i'), and the formation of adverbs denoting the direction "whence" by adding '-nē' (whence Lat. '-ne,' as in 'superne' = from above, Goth. '-na,' as in 'innana' = from within). There is not even a trace of this preserved in other Ind.-Germ. languages.

The Italic also shows striking and specific points of agreement with the Keltic. Especially to be men-

tioned are the formation of (1) the passive voice and deponent verbs with 'r'-suffix (e.g. Lat. 'sequitur' = O.Ir. 'sechedar' = he follows), (2) the future by combination with forms of the root 'bheu̯' (Lat. 'amā-bō,' O.Ir. 'no charub' = shall love), and (3) the genitive singular of the 'o-' stems in '-ī' (Lat. 'hortī,' O.Ir. 'maqi' = of the son). The linguistic middle position which Italic holds between Keltic and Germanic may best be explained on geographical grounds, since the innovations which arose in the Keltic can have penetrated to the frontier of intercourse between the Italic and Germanic, and those arising in the Germanic to that between the Italic and Keltic.

Finally, Italic exhibits innovations in common especially with Greek. Among these are in particular (1) the formation of the genitive plural of the 'ā'-declension, in a pronominal manner, in '-āsōm' instead of in '-ōm' (hence Gr. θεάων, Lat. 'deārum,' Oscan 'egmāzum' = of quarrels); (2) the transference of the feminine gender to a number of 'ō-' stems, especially names of trees, e.g. Gr. φηγός = Lat. 'fāgus.'

Only one innovation, the change of 'tˢt,' which had arisen in Ind.-Germ. from the collision of two 't'-sounds (e.g. 'd' and 't') into 'ss' is shared by the Italic conjointly with two 'centum'-languages, viz. Germanic and Keltic, as contrasted with all the other Indg. languages, so far as these can be checked. Indian has here 'tt,' Greek, Baltic-Slavonic and Iranian 'st.' Thus the Lat. 'obsessus' is related to O.Ind. 'sattás' (placed) from *'settós' from *'sed-tós' (O.Bg. 'hastō); O.Ir. 'fiss' (knowledge) from *'u̯id-'+*'tu' and O.H.G. 'giwisso' (certain) to O.Ind. 'vittás' (found, recognised) from *'u̯id-tós' and Gk. ἄϊστος (unknown) from *ἄ-Fιστος; O.Ind. 'atti' (he eats)

from *et^{s}ti from *ed-ti corresponds to Lith. 'ẽsti,' O.Bg. 'jastĭ.' A change from 't^{s}t' to 'st' was so natural that it may have occurred in Greek independently of the 'satem'-languages, as e.g. even in O.S. 'tst' could dialectically become 'st,' e.g. 'lasto' (the last) from 'lazto,' where 'z' stands for 'ts.' On the other hand, the transition of 't^{s}t' into 'ss' is so peculiar that it could scarcely have independently arisen in three or even in two different Ind.-Germ. branches.

Innovations only affecting and common to Germanic and Keltic or Germanic and Greek or Keltic and Greek are not known. Probably, therefore, Italic lay in the middle among the 'centum'-tongues with Germanic, Keltic and Greek on its respective sides, without these languages coming into geographical contact with one another. It thus becomes conceivable that a change which affected, in addition to Italic, two branches neighbouring it on different sides did not reach the third branch; still even at that time Greek may have been far from the neighbourhood of Italic. The latter possibility agrees very well with the supposition that the Greeks broke away from the 'centum'-speeches at an early date and, forcing their way through the territories of the 'satem'-tongues, at least, the Albanian, settled in the South-East of Europe. If Germanic, as is probable, was originally spoken only in Scandinavia and on the Danish Islands, Italic may perhaps in the earliest times have covered Jutland and the north-western part of Germany, with Greek south-east and Keltic west or south-west.

The large number of words which the Kelts and Germans have in common is to be explained by the fact that these peoples lived as neighbours at a

later period. Among these words are only a few verbs; the substantives, according to their meaning, belong for the most part to definite provinces of civilisation, such as the state and law, religion and warfare. From this we may conclude that these words were first borrowed by the Germans from the Kelts, in so far as the former received their rules and models of state and law, their religious views and usages of war, from the more highly civilised Kelts. In the field of sound-change, inflection, word-building and syntax, changes common to Keltic and Germanic were probably not made. Thus at the time when the Kelts and the Germans were neighbours, their languages seem to have been so far removed from one another that notwithstanding the liveliest intercourse, they did not undergo common changes. This would very well agree with the hypothesis that they were previously long separated from one another by the Italic. Indeed, the common linguistic changes of the North and West Germans ceased in a corresponding manner when the division of the latter living nearest to the former left their home, i.e. when the Anglo-Saxons abandoned Schleswig-Holstein and settled in Britain.

V. THE CLASSIFICATION OF THE GERMANIC LANGUAGES

From the first century after Christ we have somewhat more accurate knowledge of the abode of the Teutons from historical sources. According to these they then spread from Scandinavia to Middle Germany. Of those Teutonic tribes who were then settled in Germany and from whom numerous linguistic monuments of a later date have come down, the Goths lived on the Lower

Vistula, the Angles and Saxons, the ancestors of the English, in Schleswig-Holstein; the Frisians were already in Friesland, but south and south-east of the Saxons in Holstein and the Frisians dwelt the tribes from whom the Germans sprang later. Of the dialects of these tribes those of the Anglo-Saxons, Frisians and Germans, as contrasted with Gothic and Northern or Scandinavian are so nearly related that they appear as one group. It is usual to call them West Germanic. The special characteristic innovation of West Germanic is the lengthening of its consonants before certain other consonants, especially before i̯ (j).

That the West Germanic dialects are more closely united to one another than to Scandinavian follows naturally from the fact that between them and the latter the sea formed a natural boundary and in consequence a barrier to intercourse. As regards the separation of West Germanic and Gothic, this may have been perhaps partly due to a sharp political cleavage between the Western and the Eastern tribes in Germany. Still, we should expect this to be a smaller barrier to intercourse than the Baltic Sea, which, indeed, separated the Goths as well as the West Germanic peoples from the North Germans or Scandinavians. Gothic and West Germanic have in fact deviated from Scandinavian and brought about certain common changes. Among these is to be especially mentioned the formation of the abstract suffix-'assus,' which appears only in a somewhat changed form in West Germanic, e.g. in Goth. we have 'ibnassus' (evenness, equality), in O.E. 'emness' from *'efnness,' O.S. 'ebnissi,' connected with Goth. 'ibns' (even), O.E. 'efn,' O.S. 'eban'; an extended form is '-inassus' as in Goth. 'blōtinassus' (divine

service), from 'blōtan' (sacrifice), O.E. 'éhtness' (persecution) from éhtan (persecute), O.S. 'testōrnissi' (destruction) from 'testōrian' (destroy), O.H.G. 'gihōrnissī' (hearing) from 'hōrian' (hear). Another innovation is the power to form genitive and dative, according to the 'i'-declension, of the numerals 4–19.

However, West Germanic strangely enough shares with Scandinavian a large number of common innovations of which there is no trace in Gothic. Among these is the formation of the pronoun 'this' by adding '-si,' '-se' to the old demonstrative forms: while it is only 'sa' in Goth. We have 'sa-si' in Prim. Nor. 'þes-se' in O.N., 'ðe-s' in O.E., 'the-se' in O.S., 'de-se' in O.H.G. (later 'deser'). Among sound-changes especially to be noticed is the transition of 'z' into an 'r'-sound, e.g. cf. O.N. 'meire' (more), O.E. 'mára,' O.H.G. 'mēro' with Goth. 'maiza,' also that of initial 'þl' into 'fl,' cf. O.N. 'flýja' (flee), O.H.G. 'fliohan' with Goth. 'þliuhan.' If such changes succeeded in making their way over the sea, they would have also reached Gothic, if it was still spoken south of the Baltic at the time they came about. The North and West Germanic changes can only have taken place after the Goths had already migrated to the Black Sea, which first happened between A.D. 150 and 200. And if the substantive 'hád' in O.E. (= rank, state, character), 'hēd' in O.S., 'heit' in O.H.G. as in, e.g. O.E. 'mǽdenhád' (maidenhood), O.S. 'magaðhēd,' O.H.G. 'magetheit,' as well as in 'kintheit' (childhood), 'manheit' (manhood) was used as an abstract suffix in West Germanic, we may conclude that the development of the word as a suffix began likewise only after the Goths had departed from the Baltic Sea, since, in fact, West Germanic has, in common with Gothic, formed

no other substantives into abstract suffixes, but several in common with Norse or Scandinavian, thus, e.g. Goth. has only 'dōms' (judgment), but in O.N. we find also 'konungdómr' (royalty), O.E. 'cynedom,' O.S. 'kuningdōm.'

Thirdly, there are those innovations shared by Gothic and Scandinavian, but absent from West Germanic. Among these is especially the peculiar transition of P.Germ. 'ww' and 'jj' to 'ggw' and 'ggj' respectively; the latter further developed in Goth. into 'ddj.' Gothic and Scandinavian differ also from West Germanic in the following innovation: viz. that inchoative verbs, originally formed only from verbs, could also be derived from adjectives: thus on the model of inchoatives, such as Goth. 'þaúrsnan' (become dry) = O.N. 'þorna' from Goth. 'þaírsan' (wither) and O.N. 'þerra' respectively, because the word could be connected with the 'Goth. 'þaursus' (dry) and O.N. 'þurr,' the Goth. 'fullnan' (become full) = O.N. 'follna' were formed from the Goth. 'fulls' and O.N. 'fullr' respectively. Innovations of this kind must have arisen at a time when West Germanic was separate from Gothic and Scandinavian the neighbour of Goth. The memory of such a time had been preserved in the Gothic lays mentioned by the historian Jordanes. According to these the Goths had first come to the Vistula districts from Scandinavia. It is most probable that from the Gothic spoken in Scandinavia the other dialects used there were not yet separated as a distinct and relatively uniform tongue.

Taking the oldest relations as a starting-point, Germanic has been divided into Gothic-Scandinavian and West Germanic; but it is obvious that in a thorough

investigation of Germanic, the later relations, modified by the wandering of the Goths, must always be taken into consideration also.

Besides Gothic, there were originally spoken in East Germany the dialects Skirish, Burgundian, and Wandalian, but remains of them are so few and, moreover, only preserved in foreign languages, that we cannot say which of them shared the innovations common to Scandinavian and Gothic, and to what extent. We are, therefore, quite unable to classify them. If Wandalian, in agreement with later Gothic, changed the P.Germ. 'ē' into 'ī,' e.g. 'Vitarit' = Goth. 'Wita-rēþs,' it follows it had come into the neighbourhood of Gothic in East Europe, just as inversely the change of P.Germ. 'ē' into 'ā' in Burgundian, e.g. in 'Gundomarus' = Goth. *'Gunþa-mērs,' is to be explained by the later proximity of Wandalian to West Germanic on the Middle Rhine and in Southern Gaul.

We know a little more of Crimean Gothic. As Crim. Goth. 'ada' (egg) from *'addi' shows, this dialect had, like Gothic-Scandinavian, changed 'jj' into 'ggj,' as in O.N. 'egg,' from *'aggi' from *'aggjom' from *'ajjom,' and then further like Gothic into 'ddj.' Still Crimean Gothic can have been no real Gothic dialect, as it did not undergo the different changes common to East and West Gothic, especially, e.g. the change of P.Germ. 'e' into 'i,' and the return of 'o,' umlaut of 'u,' into 'u.' On the other hand, it has made certain changes in common with West Germanic which are absent from Gothic, in particular the dropping of final '-z,' except in a stressed syllable, i.e. in monosyllabic pronominal forms: cf. e.g. Crim. Goth. 'tag' (day) = O.E. 'dæg,' O.S. 'dag,' O.H.G. 'tag' with Goth. 'dags' ('-s' from

'-z'), O.N. 'dagr' ('-r' from '-z'); but Crim. Goth. 'ies' (=that, he, with '-s' from '-z' as in Goth. 'is') like O.H.G. 'er' ('-r' from '-z'). Crimean Gothic therefore, originally in Scandinavia (or on one of the Danish isles), changed 'jj' into 'ggj' and, when it had like Gothic crossed over to Germany, developed 'ggj' into 'ddj' just as Gothic did; but as a near neighbour of West Germanic, Crim. Goth. carried through, in common with this, more innovations than Gothic did. Ethnological considerations make it extremely probable that it was the language of the Heruli, who before their migration to the Crimea were probably settled in Mecklenburg.

Norse or Scandinavian since about A.D. 700 falls into two branches—East Norse and West Norse; the former is further divided into Swedish and Danish, and the latter into Norwegian and Icelandic. Iceland was colonised from Norway in the ninth century, and remained in close continuous intercourse with the mother-country. On the other hand, Danemark was colonised by people from Sweden centuries before the division of Norse into dialects, and when it later shared a common development, more with Swedish than with Norwegian, it must have been at that time also bound by closer intercourse with Sweden. The Swedish districts Halland and Schonen belonged politically to Denmark until modern times. An innovation common to both branches of West Norse, and distinguishing them from East Norse, is, among others, the transition of 'ē,' 'ī,' 'ȳ' before a vowel into consonantal 'i' ('j,' written 'i') e.g. in 'siá' (monosyllabic and=see) as opposed to East Norse 'sēa' (disyllabic). As a peculiarity distinguishing East Norse from West Norse, we may mention the displacing

of the 'r'-preterites by the weak preterite; e.g. cf. E.N. 'sāþe' (he sowed) with W.N. 'sere.' That there is no division into dialects yet perceptible in Primitive Norse, i.e. before A.D. 700, is partly due to the small range of inscriptions from this period, for at least one fact points to an already older difference in Norse. P.Germ. 'ū' before a vowel became in Goth. and E.N. an 'ō-' sound; but in W.N., as in W. Germ., it remained 'ū'; thus O.Ind. 'ábhūt,' Gk. 'ἔφῡ,' Lat. 'fui,' O.H.G. and O.S. 'būan' (dwell), O.E. 'búan,' W.N. 'búa'; but E.N. 'bóa,' Goth. 'bauan,' in which 'au' is to be spoken as an open 'ō,' as in 'Trauada' for Τρωάς. For the view that the Goths did not come from Norway, the following reasons may be advanced: first, their abode was in the Vistula country; second, the name 'Gauts,' which is related to the word 'Goth,' is found in Sweden; third, the name of the inhabitants of the island Gotland was identical with 'Goth.' The change, however, was most probably already complete when the Goths were still in Sweden.

Within West Germanic also, there are two groups to be distinguished — the Anglo-Frisian and the German. After the migration of the Angles and Saxons from Schleswig-Holstein to Britain about A.D. 450, the intercourse previously carried on between these tribes and the Frisians would be continued with difficulty, and it is, therefore, very probable that the numerous changes which the whole of the Anglo-Frisian group has undergone in contrast with German belong throughout to the time before A.D. 450. The fact that a far closer intercourse existed between the Jutes, Angles, Saxons and Frisians than between them and the more southerly tribes of the West Teutons is explained by a federation among the former, for the

Jutes, Angles and Saxons conquered Britain together, and, according to the Greek historian Procopius, the Frisians also took part in the conquest. These tribes perhaps had a common cult with a sanctuary as centre, and still earlier formed one single nation. Among Anglo-Frisian innovations may be named the raising of 'a' in a closed syllable to an 'e-' sound: O.E. 'æ,' 'e'; O.Fr. 'e'; cf. e.g. O.E. 'sæt' (sat); O.Fr. 'set,' with O.S., O.N., Goth. 'sat,' O.H.G. 'saz,' and the change of a nasalised 'ā' before 'ht' into nasalised 'ō'; cf. e.g. O.E. 'þóhte' (thought), O.Fris. 'thochte' (from *'thōhte'), with O.S., O.H.G. 'thāhta,' Goth. 'þāhta,' O.N. 'þátta.'

As Anglo-Frisian subdivisions are to be noted Anglo-Saxon or Old English and Frisian, whose chief difference lies in their treatment of the Germanic 'ai' and 'au'; P.Germ. 'ai' becomes regularly 'á' in O.E.; in O.Fris., on the other hand, either 'ā' or 'ē' according to neighbouring sounds; P.Germ. 'au' becomes 'éa' in O.E. and 'ā' in O.Fris.: thus O.E. 'māra' (more) = Goth. 'maiza,' O.Fris. 'māra'; but O.E. 'stān' (stone) = Goth. 'stains,' O.Fris. 'stēn'; O.E. 'hléapan' (leap) = Goth. 'hlaupan,' O.Fris. 'hlāpa.'

Old English is divided, according to the division of the people into Saxons, Angles and Jutes, into Saxon in the south, Anglian north of this and Kentish in the extreme south-east. The character of Saxon is most clearly defined in West Saxon (in Wessex, i.e. West Saxons); among the Anglian dialects a distinction must be drawn between Mercian in Middle England and Northumbrian in North England.

Frisian consists of West Frisian, between Fli and Lauwers, East Frisian—North Frisian [of these East

Frisian lay between Lauwers and Weser, North Frisian on the West coast of Schleswig and on the Halligen] and of Island-Frisian on Heligoland Amrum, Föhr and Sild. North Friesland was probably first colonised by the East Frisians in the ninth century A.D. Island-Frisian seems to have formed the transition to West Saxon.

The German dialects differ from the Anglo-Frisian in that they have carried through a common innovation, viz. the change of final '-a' from Ind.-Germ. '-ō' to '-o,' as the nom. sing. of weak masculines shows: cf. e.g. O.H.G. and O.S. 'hano' (cock) with O.E. 'hona,' O.Fris. 'kempa' (champion). That German also originally had '-a' in this case is clearly shown by the Suevic name 'Nasua' in Cæsar and the Batavian 'Chariovalda' of the year A.D. 16. The German tribes, however, did not, like the Anglo-Frisians, form a uniform federation, and it is only due to the relative exclusiveness of the latter that an innovation spreading from another point in the West Germanic territory did not make its way over their frontiers.

German is divided according to the tribes that were formed in Germany after the third century A.D. They are the Saxons, Thuringians, Franconians, Alemanni (Swabians) and Bavarians. In the case of the Franconians, it is impossible to speak of a uniform dialect on account of their peculiar geographical distribution. Through the High German sound-shifting which took place about A.D. 600, and changed the West Germanic 'p,' 't,' 'k,' 'd' into other sounds, Franconian lost its uniformity. The sound-shifting was most thoroughly carried out in South Germany, in Alemannic and Bavarian (which are also known as Upper German).

Then followed East Franconian with its chief centres Fulda, Würzburg, Bamberg; then Thuringian, next Rhenish-Franconian, the dialect of the old province 'Francia Rhinensis' and separated from East Franconian by Vogelsberg and Spessart; its chief centres were Mainz, Frankfort, Worms, Speier, and Weissenburg; Hessian to the west of Thuringian also belonged to it. Then came Middle Franconian stretching from the Mosel country to a line drawn from Düsseldorf to Aachen (Aix-la-Chapelle). The dialects between East and Middle Franconian are called Middle German. Low Franconian, which bordered Middle Franconian on the north, was not generally affected by the High German sound-shifting. The same is also true of Saxon, which is, therefore, along with Low Franconian, included in Low German; but it is also variously named. Upper and Middle German are together called High German.

The boundary of the dukedom of Saxony ran north of Hessen and Thuringia in a somewhat easterly direction, but at the south-eastern spur of the Harz it bent sharply to the south and continued to Merseburg. The High German sound-shifting reached right up to this peculiarly formed political boundary, but the whole district east of the line drawn from the south-east corner of the Harz to Merseburg remained unaffected by it, which is the more striking, as it otherwise faded away not only towards the north but also towards the west. Rhenish-Franconian, which mostly lay to the south-west of Thuringian, did not shift W.Germ. 'd' and initial 'p' to 't' and 'pf' respectively.

Within the politically united Franconian the sound-shifting continued, west of Saxon, in a diminished degree northwards in Middle Franconian; here, how-

ever, it soon grew weaker, as it could no longer make its way in its earlier easterly breadth. As there was here, however, no such sharp political boundary, at least 'k' was shifted to 'ch,' e.g. 'ich' (I) from 'ik,' in the extreme south-eastern district of Low Franconian.

The relations of Saxon and Low Franconian as members of German must indeed have been so far limited, as these dialects show traces of Anglo-Frisian also. In most of the Old Saxon monuments there are scattered Anglo-Frisian forms, thus, e.g. frequently words with 'e' for 'a' in a closed syllable. This is to be explained in this way: an Anglo-Frisian nobility had spread over the German-Saxon country, from whose language the majority of the people were able to adopt a few words. This nobility belonged preponderantly to the Saxon branch of the Anglo-Frisians, which had extended its territory from Holstein far over North Germany, and given the name of Saxons to the tribes united under its sway. That Frisians allied with the Saxons also came is shown by the Frisian dialect of Merseburg in the Old Saxon period. This Frisian exhibits no mixture of German: clearly the conquerors themselves built and occupied the fortress of Merseburg on the extreme south-east point of the conquered country against the Thuringians and Slavs. Several peculiarities of Anglo-Frisian, however, directly penetrated into Old Saxon, and they are still seen in Modern Low German. This is clearly seen in, e.g. M. and N.L.G. 'gōs' (goose) = O.E. 'gós,' which can only have arisen in *'gons' from 'gans,' as the Anglo-Frisian nasals were dropped before the spirants 's,' 'þ,' 'f' with lengthening of the preceding vowel; 'an' therefore became 'on,' e.g. in O.E. and O.Fris. 'lond.' In O.S.

(and in M.L.G. and N.L.G.) there are, to be sure, words with loss of the nasal before a spirant and lengthening of the preceding vowel, e.g. 'fīf' (five) = O.E. 'fíf' as opposed to Goth. and O.H.G. 'fimf,' but there is never a change of 'an' to 'on,' except when 'on' before a spirant was changed into 'ō,' as in 'gōs' and in O.S. 'ōthar' (other), cf. 'ander.' Therefore the German-Saxons borrowed 'gōs' and 'fīf,' and in Westphalia 'ūs' (us) from Anglo-Frisian; Eastphalian 'uns' beside 'gōs' (or its derivative 'gaus') likewise supports the view that here we have only to do with the borrowing of single words: these words were readily taken over because they were striking in their strong divergence from the German forms. The constant likeness, in O.S., of the three persons of the plural of verbs agrees with Anglo-Frisian, and comes under this head. This levelling of persons, to judge from M.L.G. and N.L.G., penetrated everywhere as far as the boundary towards the Thuringians and Franconians, thus as far as the Anglo-Frisian Saxons had extended their territory. Old Saxon also agrees with Anglo-Frisian, in that the accus. sing. of the pronoun of the first and second person could assume the form of the dative; in M.L.G. this so developed that either the accus. preserved the form of the dat. throughout, or inversely the dat. that of the accus. As the likeness of the two cases penetrated everywhere right up to the High German boundary, it also is to be ascribed to the victorious Anglo-Frisians.

The last phenomenon and the loss of nasals before spirants, with vowel-lengthening in isolated words, appear also in Low Franconian; the Anglo-Frisians must therefore have penetrated here also. But they could

not have been so numerous or powerful as in the Saxon country, as the three persons of the plural of verbs preserved their different forms; 'gaus' (as well as 'fīf,' 'ūs') is also found in Middle Dutch.

To the German dialects belongs also Langobardian, which likewise developed '-a' to '-o,' e.g. in 'sporo' (spur) = O.H.G. 'sporo,' in the nom. sing. of weak masculines. It was originally spoken on the Lower Elbe, but was already in the third century A.D. transplanted far towards the south-east; its preserved remains show hardly anything to reveal its old origin. On the other hand, having been taken to Italy in the sixth century A.D., it carried out the sound-shifting in common with Upper German, to which it was now neighbour, cf. e.g. 'ih' (I), O.H.G. 'ih' with Goth. O.S. 'ik,' 'sculdhais' (mayor), O.H.G. 'scultheizo' with M.L.G. 'schulthete,' O.E. 'sculdhæta.'

Of the Germanic dialects only the most characteristic types—Gothic, Old Norse, Old English (West Saxon), Old Saxon, and Old High German—will in general be considered in the following sections.

Part II

PHONOLOGY

I. ACCENTUATION

1. Sentence-accent

Accent in individual words in the sentence is regulated by the sentence-accent. Already in Indo-Germanic, accent must have been musical [pitch-accent], i.e. graded according as the pitch was high or low in so far as it characterised the sentence as a statement, a question, an expression of a wish, etc. On the other hand, it was, with regard to the logical relation of the words to one another, expiratory [stress-accent], i.e. differing in strength and weakness, according as naturally the more important words were more strongly spoken and the less important more weakly. Thus certain words, in themselves unimportant, especially different particles, were always spoken with a weak stress, whereby they generally leant on the preceding word, to which they related, and were hence called enclitics. To this class belongs the particle *'ge,' which leant on forms of the personal pronouns and appears in the Gk. ἐμέ-γε and Goth. 'mi-k,' in which latter the 'e' of *'ke' from *'ge' could not have been lost if it had borne an independent strong accent. Other little words were again followed by the word on

which they in their accent leant, and therefore called proclitic; to these belonged the prepositions, as Ind.-Germ. *'en' (in); cf. Gk. ἐν Ἀθήναις and Mod. Eng. 'in Athens.' The Ind.-Germ. sentence-accent has generally remained unchanged in Germanic.

2. Word-accent

The accents of the individual syllables in the word are ruled by the word-accent. As regards the Ind.-Germ. parent speech, we may infer that a syllable was spoken in a higher or a lower pitch, according as the energy of the air-stream with which it was produced was greater or less, i.e. that the musical and expiratory accents coincided. This is, on the whole, the most frequent kind of word-accent; it predominates in Modern Low German and in the North German pronunciation of High German.

A comparison of the Ind.-Germ. languages, especially of Old Indian and Greek, has shown that the word-accent was freer, i.e. that the place of the chief accent was independent of the arrangement of the syllables and of their number and quantity. The chief accent could equally well be on the root-syllable, a stem-formative suffix or a case- or personal ending. Thus, e.g. of the word 'father,' the vocative in O.Ind. was 'pí-tar,' Gk. 'πά-τερ,' with stress on the root-syllable; accusative in O.Ind. 'pi-tár-am,' Gk. 'πα-τέρ-α,' with the accent on the stem-formative suffix; the genitive in Gk. 'πα-τρ-ός,' with the stress on the case-ending; the latter stress is also borne by other genitives, e.g. O.Ind. 'pad-ás' (of the foot), Gk. 'ποδ-ός.'

In Germanic the chief accent was everywhere moved back to the initial syllable, as the metre of the Old

Germanic dialects, the sound-losses of the other syllables and the pronunciation of the living Germanic tongues prove. In this way the root-syllable has in most cases preserved the chief accent; where, however, there was a reduplicated syllable present, it attracted the accent to itself. This is the case in the original perfect, which in Ind.-Germ. (as still in O.Ind.) bore the chief accent on its root-syllable, e.g. O.N. 'rera' (I rowed) from *'rerō,' with shortening of the root-syllable in consequence of its being unaccented.

An apparent exception is formed by verbal compounds; in these the first syllable of the verbal component, not that of the preposition standing at the beginning of the compound, received the chief accent. It was due to the fact that, at the time when the accent was moved back, the preposition and verb had not yet been blended into one word, for they could still be separated in Gothic by enclitical particles, e.g. in 'ubuhwōpida' (and cried out) 'uh' = and, 'usnugibiþ' (give now) 'nu' = now. In this way only is it to be explained why the Gothic preposition 'and' (along, contrary to) still appears in its older form *'anda' in nounal compounds, e.g. in 'andawaúrd' (answer), but in verbal compounds only as 'and-,' e.g. in 'andwaúrdjan' (answer): '-a' in Gothic was only dropped when final, not when medial. As it was in this case, so was it in other nounal compounds which had already become uniform words in the Ind.-Germ. parent speech: the accent was always moved back to the first syllable of the first component. This difference of accentuation in nounal and verbal compounds also led in O.H.G. to differences of sound, in that the vowels of the syllables before the chief accent were changed, while those of the syllables bearing the

chief accent remained unchanged; hence, cf. e.g. 'intlāzan' (let go) with 'antlāz' (release), and again N.H.G. 'erteilen' (impart) from O.H.G. 'irteilen' with N.H.G. 'urteil' (judgment, opinion) from O.H.G. 'urteil.'

The syllables not bearing the chief accent are divided into medium-accented and unaccented syllables: thus in the N.H.G. 'übermut' the second syllable is unaccented and the third medium-accented. Medium-accented syllables are further to be divided into strong and weak medium-accented, which syllables bear a strong medium-accent and which a weak medium-accent can partly be gathered from metre: thus in O.E. a long medial syllable which followed a long root-syllable bore the strong medium-accent, e.g. in 'æresta' (first); a short syllable, however, which followed a long one bore a weak medium-accent, e.g. in 'fundode' (set out). In Germanic every syllable is long in which the vowel is followed by two consonants.

3. Syllabic Accent

The accent of the individual sounds or sound-parts of a syllable is ruled by the syllabic accent. The most strongly spoken sound in a syllable is said to be syllabic, the rest non-syllabic. "Syllabic pitch" is also used for the strongest sound or sound-parts of a syllable.

Generally it is a vowel that is most strongly spoken in syllable; sometimes, however, it is a liquid ('r,' 'l'), or a nasal ('m,' 'n') as, e.g. 'l' and 'n,' in the second syllable of the N.H.G. 'wandelt' and 'laden' respectively, in which the vowel is only orthographic. The syllabic liquids and nasals are denoted as follows 'r̥,' 'l̥,' 'm̥,' 'n̥.'

On the other hand, a vowel can also become non-syllabic. If we pronounce the N.H.G. 'lilie,' e.g. as two

syllables, the second 'i' is non-syllabic. The English w' is generally no spirant 'w,' but only a non-syllabic u.' Non-syllabic are 'i' and 'u' as second components of the diphthongs 'ei,' 'ai,' 'oi,' 'eu,' 'au,' 'ou' in which only the 'e,' 'a,' 'o' form the "syllabic pitch." The non-syllabic vowels are also called half-vowels, and are denoted thus 'i̯,' 'u̯.'

We speak of syllables as having one accent-point when they contain one sound or sound-part towards which the force of the air-stream increases or from which it declines, or in which both of these things happen; on the other hand, such syllables as contain two such sounds or sound-parts are said to be "slurred," or to have two accent-points [marked with ~]. In the latter case there is thus between the two syllabic points a more weakly stressed syllabic part; also the two syllabic points are spoken with different stress. With the two accent-points of a syllable there are generally bound variations in their pitch. Syllables with two accent-points are naturally always long; mostly even longer than a long syllable with one accent-point.

As most languages have as a rule only syllables with one accent-point, most syllables with two accent-points are derived from those with one accent-point. Syllables with two accent-points can arise from vowel-contractions, e.g. in Gk. πλεῖ from πλέε, but also from the loss of the vowel of a following syllable, e.g. in Modern Middle Franconian, cf. 'hũs' (to the house), from 'hũse,' 'hũs' (the house): sometimes also from the spontaneous lengthening of the vowel, as in the case of certain vowels in Modern Middle Franconian, in which, e.g. every M.H.G. ā has become õ, thus 'rāt' (advice), 'rõt.'

Of the Ind.-Germ. languages, Greek and Lithuanian distinguish syllables with two accent-points in their writing. As, among other instances, the Gk. nom. θεᾶ, gen. θεᾶς, Lith. 'gerà,' in compounds, 'geró-ji' (= Lat. bona, fem.), gen. 'gerõs'[1] show, the difference between one and two accent-point stress was already present in Ind.-Germ. That it still existed in O.Ind. is proved by the custom in the oldest Indian hymns to read certain long syllables as monosyllabic, certain others as monosyllabic or disyllabic; as, e.g. to the former belongs the '-ā' of the nom. 'áśva' (mare) to the latter the 'ā' of the gen. 'áśvās,' there is, therefore, a parallel with the Gk. θεᾶ, θεᾶς and 'geróji,' 'gerõs,' and '-ās' in 'áśvās' is to be read "slurred." Germanic also still preserved the difference between one and two accent-point stress in the first centuries of our era, for its shortening of final syllables which took place during this period is partly determined by this difference.

II. VOWELS

1. Spontaneous Sound-development

(A) *Simple Syllabic Vowels*

Ind.-Germ. possessed the following simple syllabic vowels (i.e. vowels which bore the accent-stress): 'i,' 'ī,' 'u,' 'ū,' 'e,' 'ē,' 'o,' 'ō,' 'a,' 'ā,' 'ə' (the last a very short vowel of obscure quality). These were represented in Germanic as follows:—

(1) 'i' remains in chief-accented syllables: Lat. 'piscis' (fish), Goth. 'fisks,' O.N. 'fiskr,' O.S. 'fisc,'

[1] Ind.-Germ. 'ā' becomes 'ō' in Lith.; this ō in the case of an accent-point is shortened to 'a' in final syllables. Long accent-point in Lith. is denoted by ´, the short by `.

O.H.G. 'fisk.' Likewise in syllables not bearing the chief accent: Lat. 'mare' (from *'mari,' as the nom. acc. plu. shows), Prim. O.E. and O.S. 'meri' (sea), O.H.G. 'meri,' Goth. only in 'marisaiws' (lit. sea-sea).

(2) 'ī' remains in chief-accented syllables: Lat. 'suīnus' (derived from swine), Goth. 'swein,' O.N. 'suín,' O.E. 'swín,' O.S. and O.H.G. 'swīn.' Likewise in syllabes not bearing the chief accent: Lat. 'velīmus,' Goth. 'wileima' (we will, lit. we may will).

(3) 'u' remains in chief-accented syllables: O.Ind. 'bubudhimá' (we perceived), Goth. 'ana-budum' (we sent for), O.N. 'buðom' (we bade), O.E. 'budon,' O.S. 'budun,' O.H.G. 'butum.' Likewise in syllables not bearing the chief accent: O.Ind. 'sūnúš' (son), Lith. 'sūnùs,' Goth. 'sunus,' Prim. O.N. 'sunuʀ,' O.E., O.S., O.H.G. 'sunu.'

(4) 'ū' remains in chief-accented syllables: O.Ind. 'mūš' (mouse), Lat. 'mūs,' O.N., O.E. 'mús,' M.L.G., O.H.G. 'mūs.' There are no examples of it in syllables not bearing the chief accent.

(5) 'e' remains in chief-accented syllables: it becomes 'i' only in Goth., Gk. ἔδομαι, Lat. 'edere,' O.N. 'eta' (eat), O.E., O.S. 'etan,' O.H.G. 'ezzan,' but Goth. 'itan.' In syllables not bearing the chief stress, 'e' becomes 'i' already in P.Germ.: Gk. θύγατρες, Prim. O.N. 'dohtriʀ' (daughters); Gk. ὠλένη, O.H.G. 'elina' (ell).

(6) 'ē' remains in chief-accented syllables in Goth., becomes 'a' in Nor. and W.Germ., but returns to 'ē' in Anglo-Frisian (W.S. æ): Gk. ἔδ-ηδα, Lat. 'ēdi,' Goth. 'fr-ēt' (ate), O.N. 'át,' W.S. 'æt,' Anglian 'ét,' O.S. 'āt,' O.H.G. 'āz.' In syllables not bearing the chief accent,

it also remains in O.H.G., cf. e.g. 'habēmēs' (we have) with Lat. 'habēmus,' and becomes a short 'e' in O.N. and O.E., Goth. 'habaidēs' (thou hadst), O.N. 'hafþer,' O.E. 'hæfdes.'

(7) 'o' becomes 'a' in chief-accented syllables: Lat. 'molere' (grind), Goth., O.S., O.H.G. 'malan'; Lat. 'porcus,' O.H.G. 'farh' (swine, young pig), O.E. 'fearh' (in O.E. 'a' becomes 'æ' in a close syllable, and 'æ' becomes 'ea' before 'rh'). Likewise in syllables not bearing the chief accent: Doric *φέροντι* (they carry), Goth. 'baírand,' O.N. 'bera,' O.E., O.S. 'beraþ,' O.H.G. 'berant.'

(8) 'ō' remains in chief-accented syllables (in O.H.G., later 'oa,' then 'ua,' and finally 'uo'): Gk. *θωμός* (heap, really "placing," related to *τίθημι*), Goth. 'dōms' (judgment), O.N. 'dómr,' O.E. 'dóm,' O.S. 'dōm,' O.H.G. 'tuom.' Likewise in syllables not bearing the chief accent: Gk. gen. plu. fem. *τάων* (from **τάσων*), Goth. (corresponding exactly only in the ending) 'þizō' (this).

(9) 'a' remains in chief-accented syllables: Gk. *ἀγρός*, Lat. 'ager,' Goth. 'akrs' (field), O.N. 'akr,' O.S. 'akkar,' O.H.G. 'ackar,' O.E. 'æcer' ('a' becomes 'æ' before 'e' of the following syllable); Gk. *ἄγος* (guilt), cf. O.E. 'acan' (ache). For 'a' in other syllables there are no examples.

(10) 'ā' in chief-accented syllables becomes 'ō' (in O.H.G. later 'oa,' 'ua,' 'uo'): Gk. *φράτωρ*, Lat. 'frāter,' Goth. 'brōþar' (brother), O.N. 'bróðer,' O.E. 'bróðor,' O.S. 'brōther,' O.H.G. 'bruoder.' Likewise in syllables not bearing the chief accent: thus in the gen. sing. of

the 'ā-' declension as in the Gk. θε-ᾶς, Lat. 'pater familiās,' Goth. 'gib-ōs' (of the gift).

(11) 'ə' in chief-accented syllables becomes 'a,' as in the other Ind.-Germ. languages, except in Aryan, in which it develops into 'i': O.Ind. 'pitā́' (father), Gk. πατήρ, Lat. 'pater,' Goth. 'fadar,' O.N. 'faðer,' O.E. 'fæder,' O.S. 'fader,' O.H.G. 'fater.' In syllables not bearing the chief accent, 'ə' becomes 'u'; and 'u' here varies with 'i,' e.g. in O.H.G. 'kranuh' and 'kranih,' as does Ind.-Germ. 'e' (from which comes unaccented P.Germ. i) with ə.

(B) *Diphthongs*

Ind.-Germ. could combine 'e,' 'ē,' 'o,' 'ō,' 'a,' 'ā,' 'ə' as accent-points with a following 'i' or 'u,' and form diphthongs. If the first component is short we have normal diphthongs, if long, long diphthongs.

(a) *Normal Diphthongs*

The normal diphthongs, with the exception of 'ei,' change exactly like their components; they then undergo different changes in the Germanic dialects. 'əi' and 'əu,' which everywhere fall together with 'ai' and 'au,' may be omitted here.

(1) 'ei' becomes 'ī': Gk. στείχειν (go), Goth. 'steigan' (ascend), O.N. 'stíga,' O.E. 'stígan,' O.S., O.H.G. 'stīgan.'

(2) 'eu' becomes in Goth. 'iu,' O.N. 'ió' ('jó'), O.E. 'éo,' O.S., O.H.G. 'iu': Gk. γεύσομαι, Goth. 'kiusa' (I choose), O.E. 'céose,' O.S., O.H.G. 'kiusu,' O.N. (infin.) 'kiósa' (choose). In Prim. O.N. 'eu' is still present

(hence in Prim. Germ. also): 'leuƀaR' (dear), Goth. 'liubs,' O.E. 'léof.'

(3) 'oi' becomes 'ai' and remains 'ai' in Goth. but becomes in O.N. 'ei,' O.E. 'ā,' O.S. 'ē,' O.H.G. 'ei': Gk. οἴνη (the ace at dice), O.Lat. 'oinos' (one), Goth. 'ains,' O.N. 'einn,' O.E. 'án,' O.S. 'ēn,' O.H.G. 'ein.'

(4) 'ou' becomes 'au' and remains 'au' in Goth. and O.N., but becomes in O.E. 'éa,' O.S. 'ō,' O.H.G. 'ou': Ind.-Germ. *'roudho-s,' Umbrian acc. plu. 'rofu' (red), Lat. 'rufus,' Lith. 'raũdas,' Goth. 'rauþs,' O.N. 'rauðr,' O.E. 'réad,' O.S. 'rōd.' Also a perfect like εἰλήλουθα (ου in an earlier period was spoken 'ou'), beside ἐλεύσομαι may be compared with a Germanic perfect such as O.N. 'flaug' (flew), O.E. 'fléag,' O.S. 'flōg,' O.H.G. 'floug,' along with presents with Ind.-Germ. 'eu' as O.E. 'fléoge,' O.H.G. 'fliugu.'

(5) 'ai' remains 'ai,' but changes later like the 'ai' from 'oi': Gk. αἴθω (shine), Lat. 'aedēs,' O.E. 'ád' (funeral pile), O.H.G. 'eit'; Lat. 'aes,' Goth. 'aiz' (ore), O.N. 'eir,' O.E. 'ár.'

(6) 'au' remains 'au,' but changes later like the 'au' from 'ou': Gk. αὔξω, Lat. 'augeo,' Goth. 'aukan' (increase), O.N. 'auka,' O.E. 'éacen' (great, lit. increased), O.S. 'giōcan' (impregnated), O.H.G. 'ouhhōn' (increase).

When Prim. Germ. 'ai' stood in a syllable not bearing the chief accent, it remained in Goth., but became in Nor. and W.Germ. 'ē,' and in O.N., O.E. and O.S. further developed into 'e': Gk. φέροις, Goth. 'baírais' (thou mayest carry), O.H.G. 'berēs,' O.N. 'berer,' O.E. 'bere,' O.S. 'beres.'

P.Germ. 'au' under similar conditions likewise re-

mained in Goth., but further developed in Nor. and W. Germ. into 'ō' which became 'a' already in Prim. O.N. and in O.E.: Lith. 'sūnaũs' (of the son), Goth. 'sunaus,' O.H.G. 'sunō,' Prim. O.N. 'sunaR,' O.E. 'suna.'

(b) *Long Diphthongs*

The first components of the Ind.-Germ. long diphthongs were shortened in Germanic. The normal diphthongs thus produced developed like the old normal diphthongs.

(1) 'ōi' becomes 'ai': O.Lat. 'ploirumē' (mostly: with 'oi' from 'ōi,' which appears as 'āi' in O.Ind 'prāyas' = more), O.N. 'fleire' (more).

(2) ōu becomes au: O.Ind. nom. dual. masc. 'dvấu' (two) from *'dṵōṵ' (whence also Lat. 'duō') O.N. nom. dual neut. 'tvau.'

(3) 'āu' becomes 'au': Cret. *ἀϝέλιος* (sun) from *'sāṵelios,' Goth. 'sauil.'

There are no certain examples of the remaining long diphthongs in chief accented syllables. We seem to have examples of only 'ēi' which has developed in another way. The close 'ē' (called 'ē²') of Germanic is traced back to 'ēi'; it was preserved everywhere and only in O.H.G. did it later develop into 'ea,' then 'ia' and finally 'ie,' The 'ē²' appears only in a few words and mostly in those which have 'i' or 'ī' in cognate forms with which Ind.-Germ. 'ēi' could change. So beside Goth. and O.S. 'hēr,' O.N. and O.E. 'hér,' O.H.G. 'hear' (here) we have Goth. 'hidrē' (hither), O.S. 'hīr' (here). As the Lat. 'ē' was close, 'ē²' is also found in Germanic in loan-words with 'ē' from Latin. Vul. Lat. 'mēsa' (table), Goth. 'mēs,' O.H.G. 'meas.'

(C) *Syllabic Liquids and Nasals*

It has also been inferred that syllabic liquids and nasals existed in Ind.-Germ., although only in one language, O.Ind., is a trace of them preserved, viz. '$\underset{\circ}{r}$' as the representative of Ind.-Germ. '$\underset{\circ}{r}$' and '$\underset{\circ}{l}$'; in Gk. '$\underset{\circ}{r}$' is represented by $\alpha\rho$ and $\rho\alpha$, and '$\underset{\circ}{l}$' by $\alpha\lambda$ and $\lambda\alpha$; in Lat. $\underset{\circ}{r}$ by 'or' and $\underset{\circ}{l}$ by 'ol'; for $\underset{\circ}{m}$ and $\underset{\circ}{n}$ we have in O.Ind. 'a,' Gk. α, Lat. 'em,' 'en.'

In Germanic $\underset{\circ}{r}$, $\underset{\circ}{l}$, $\underset{\circ}{m}$, $\underset{\circ}{n}$ are mostly represented by 'ur,' 'ul,' 'um,' 'un,' O.Ind. $t\underset{\circ}{r}\check{s}\acute{u}\check{s}$ (parched), Gk. $\tau\alpha\rho\sigma\acute{o}\varsigma$ (dry), O.N. 'þurr,' O.S. 'thurri,' O.H.G. 'durri'; O.Ind. 'v$^{\text{r}}$kas' (wolf), Goth. 'wulfs,' O.N. 'ulfr,' O.E. and O.S. 'wulf'; O.Ind. 'gátiš' (going) from Ind.-Germ. 'g$^{\text{v}}\underset{\circ}{m}$tí-s,' Lat. 'inventiō' from *'-gvemtiō' (related to O.Ind. 'gámati'= goes, Goth. 'qimiþ' = comes), Goth. 'ga-qumþs' (meeting), O.H.G. 'kumft'; O.Ind. 'matás' (thought, p.p.), Gk. $\alpha\dot{\upsilon}\tau\acute{o}$-$\mu\alpha\tau o\varsigma$ (lit. self-thinking), Lat. 'com-mentus' (devised), Goth. 'ga-munds' (remembrance), O.H.G. 'gimunt.' Sometimes for Ind.-Germ. '$\underset{\circ}{r}$,' '$\underset{\circ}{l}$,' '$\underset{\circ}{m}$,' '$\underset{\circ}{n}$' we have in Germanic 'ru,' 'lu,' 'mu,' 'nu': Gk. $\dot{\alpha}\delta\rho\acute{o}\varsigma$ (ripe) from *'s$\underset{\circ}{n}$drós,' Goth. 'snutrs' (prudent). The cause of this difference is not sufficiently clear: it is certainly due partly to the co-operation of related forms, especially in the plu. perf., hence, e.g. cf. in O.H.G. 'fluhtum' (we plaited) with infin. 'flehtan,' but 'hulfum' (we helped) with 'helfan.'

II. COMBINATIVE SOUND-DEVELOPMENT

A. Umlaut

Umlaut is the assimilation of the vowels of the chief-accented syllables to those of the following syllables which do not bear a chief accent. The similar changes brought about by vowels produced in the middle position in the mouth are embraced under 'a-' umlaut.

(a) *'a-' umlaut*

(1) P.Germ. 'i' becomes 'e' before 'a,' 'ā,' 'o,' 'ō,' 'ē': Lat. 'vir' from Ind.-Germ. 'u̯iros,' O.N. 'verr' (man), O.E., O.S., O.H.G. 'wer'; Gk. *στίχος* (row, line), O.H.G. 'stec' (path), cf. also Lett. 'stiga,' O.H.G. 'stega,' 'stegōn' (steps, n.), but 'stigum' (we ascended).

(2) P.Germ. 'u' becomes 'o' before 'a,' 'ā,' 'o,' 'ō,' 'ē': Lat. 'iugum' from Ind.-Germ. *'iugom' (cf. Gk. *ζυγόν*), O.N. 'ok' from *'jok,' O.H.G. 'joh' (yoke). So 'o' occurs regularly for 'u' in the past. part. of verbs with 'eu' in the root-syllable, as O.S. 'biudu' (bid), O.H.G. 'biutu,' while in the plu. pret. 'u' is preserved before 'u': thus, cf. O.S. 'budum' (we bade), O.H.G. 'butum' with O.S. 'gibodan' (bidden), O.H.G. 'gibotan.' In this way are also to be explained the differences between cognate words like O.H.G. 'wolla' (wool) and 'wullīn' (woollen), O.H.G. 'gold,' from *'gulþóm' (gold) and 'guldīn' (golden).

'a-' umlaut of the simple vowels appears in W.Germ., O.N. and Crim.-Goth., but not in Goth. Thus cf. O.H.G. and O.S. 'regan' (rain), O.E. and O.N. 'regn,' Crim.-Goth. 'reghen' with Goth. 'rign,' cog. with Lat. 'rigāre,' and O.H.G., O.S. and O.E. 'gold,' O.N. 'goll,' Crim.-Goth.

'goltz' with Goth. 'gulþ.' As the Goths cannot have migrated to the Black Sea earlier than the Crimean-Goths, 'a-' umlaut must have already become operative when the Goths lived on the Vistula. If it crossed over the sea from Norse to W.Germ. and Crim.-Goth., or in the reverse direction, it probably reached Gothic, which was separated from the other dialects only through Germanic territories, and again disappeared from it by the 'o' changing back into 'u' and 'e' into 'i.'

(3) In O.S. and O.H.G. 'iu' from 'eu' becomes 'eo' (later 'io') before 'a' while it is retained before 'i' and 'u': O.S. 'beodan,' 'biodan' (bid), O.H.G. 'beotan,' 'biotan,' but O.S. 'biudu' (I bid), O.H.G. 'biutu,' O.S. 'biudis' (thou biddest), O.H.G. 'biutis.'

(b) '*i-*' *umlaut*

(1) P.Germ. 'e' becomes 'i' before 'i,' 'i̯,' and 'ī': Gk. *ἐστί*, Goth., O.S., O.H.G. 'ist,' O.E., O.S. 'is'; Lat. 'medius,' Goth. 'midjis' (middle), O.N. 'miðr,' O.E. 'midd,' O.S. 'middi,' O.H.G. 'mitti'; Lat. 'velīs,' Goth. 'wileis' (thou wilt, or wishest); Prim. O.N. 'wiliR,' O.N. 'vill,' O.E. 'wile,' O.S. and O.H.G. 'wili.' Likewise are to be explained the differences between O.H.G. 'erda' (earth), (cf. Gk. *ἔρᾱξε* = on the earth) and 'irdīn' (earthen).

(2) 'a' (O.E. 'æ'), 'ā' and the back vowels were later in all the Germanic dialects except Goth. and Crim.-Goth. assimilated to a following 'i,' 'i̯,' and 'ī.' Probably during the period in which the several dialects, except Goth. and Crim.-Goth., were still associated (i.e. about A.D. 200–450), the consonants preceding 'i,' 'i̯,'

and 'ī' were palatalised or fronted, and then in the period of isolated dialects influenced the vowels preceding them.

Thus 'a' becomes 'e' in O.N.: 'ketell' (kettle), Goth. 'katils'; 'ā' from. P.Germ. 'ē' becomes 'æ': 'lætr' (lets), Goth. 'lētis'; 'ó' becomes 'ǿ' (ö): 'sǿkia' (seek), Goth. 'sōkjan'; 'u' becomes 'y' (ü): 'fylla' (fill), Goth. 'fulljan'; 'ú' becomes 'ý' ('ü'): 'hýsi' (I house, or shelter) from 'hús' (house). Diphthongs were also likewise fronted, e.g. 'au' becomes 'øy,' later 'ey': 'hløypr,' 'hleypr' (thou leapest), Goth. 'hlaupis,' but 'hlaupa' (leap), Goth. 'hlaupan.'

O.E. 'æ' becomes 'e': 'settan' (set) from *'sætjan,' Goth. 'satjan' (cf. 'sæt' = sat, Goth. 'sat'); 'á,' from P.Germ. 'ai' or 'ē,' becomes 'æ': hælan (heal), Goth. 'hailjan,' but 'hál' (healthy), Goth. 'hails'; 'læce' (physician, leech), Goth. 'lēkeis'; 'ó' becomes 'é': 'sēcan' (seek), Goth. 'sōkjan'; 'u' becomes 'y' (ü): 'wyllen' (woollen), O.H.G. 'wullīn,' but 'wull' (wool); 'ú' becomes 'ý' (ü): 'ontýnan' (open) from *'on-tūn-jan,' cf. 'tún' (enclosure); 'éa' from 'au' becomes 'íe': 'híehst' (highest), Goth. 'hauhists,' but 'héah' (high), Goth. 'hauhs'; 'éo' becomes 'íe': 'líehtan (give light), Goth. 'liuhtjan,' but 'léoht' (light), Goth. 'liuhaþ.'

In O.S. and O.H.G. only 'a' at first was affected by 'i-' umlaut, and it became 'e.' Although this 'e' coincided with the old 'e' in writing, it must, however, have been a higher vowel than the latter already in O.H.G., for they do not rime together in M.H.G., and are still kept apart in High German dialects. We denote this 'e' by 'ė,' e.g. in O.H.G. 'sėzzan' (set), cf. O.S. 'settian,' Goth. 'satjan.' This umlaut also took place in the eighth century. An umlaut of 'u,' written 'iu' and pronounced

'ü,' appears in O.H.G. only in the tenth century, e.g. in 'hiute' (hides) from 'hūti': all other instances of 'i-' umlaut only appear in M.L.G. and M.H.G. This slow spreading of the process makes it probable that the palatalisation of the intervening consonants which caused the umlaut made its way into German from Anglo-Frisian. Another circumstance points to this conclusion, viz. the fact that 'i,' which disappeared in W.Germ. after a long chief-accented syllable, had previously caused umlaut in O.E., but not in German, cf. e.g. O.E. 'brýd' (bride) from *'brūdiz' (borrowed in Latin as 'brūtis') with O.S. 'brūd,' M.L.G. and M.H.G. 'brūt.' Finally in favour of the view that the palatalisation advanced from the coast of the North Sea is the fact that the power of umlaut declines generally towards the south. While as a rule only 'h'+cons. before 'i,' 'ī,' 'i̯,' prevented the umlaut of 'a' to 'e' in German [e.g. in O.S., O.Mid. and O. Upper G. 'māhtig' (mighty)], because 'h'+cons. had escaped the palatalisation, this was in O. Upper G. also the case with 'l'+cons. [cf. e.g. 'haltis' (thou holdest) with O. Mid. G. 'heltis,' 'heldis,' O.S. 'heldis'] and generally with 'r'+cons.

(c) '*u-*' *umlaut*

The most important 'u-' umlaut is that in O.Icel. of 'a' to 'o̧' and 'á' to 'ó̧': 'o̧' and 'ó̧' are open vowels and nearer to 'a' and 'á' than are 'o' and 'ó.' Cf. O.Norw. 'kallum' (we call), O.Icel. 'ko̧llom'; O.H.G. 'ātum' (we eat), O.Norw. 'átom,' O.Icel. 'ó̧tom.'

B. Influence of Following Consonants

(a) *Positive Influence*

(1) Before nasal + cons. P.Germ. 'e' becomes 'i': Lat. 'ventus,' Goth. 'winds' (wind), O.N. 'vindr,' O.E. and O.S. 'wind,' O.H.G. 'wint.'

(2) In Goth. 'i' before 'r' and 'h' becomes 'e' (written 'ai,' in modern times 'aí'), 'u' becomes 'o' (written 'au,' in modern times 'aú'), from which we cannot say whether 'i' and 'u' are old or only come from 'e' and 'o': O.N. 'verpa' (throw), O.H.G. 'werfan,' Goth. 'waírpan'; O.S., O.H.G. 'reht' (right), Goth. 'raíhts'; O.E. 'burh' (city), O.S., O.H.G. 'burg,' Goth. 'baúrgs'; O.E. 'dohtor,' Goth. 'daúhtar.'

(3) Before certain consonants in O.E. 'e' is broken into the short diphthong 'eo' and 'æ' (from 'a') into 'ea'; this happens always before 'r' + cons. O.H.G. 'werfan,' O.E. 'weorpan'; Goth. 'arms' (poor), O.E. 'earm.'

(4) In O.H.G. 'ai' before 'h,' 'r,' 'w' becomes 'ē': Goth. 'aihts' (possession), O.H.G. 'ēht'; Goth. 'air' (sooner), O.H.G. 'ēr'; Goth. 'aiws' (eternity), O.H.G. 'ēwa.'

(5) In O.H.G. 'au' before 'h' and all dentals ('d,' 'þ,' 't,' 'z,' 's,' 'n,' 'r,' 'l') becomes 'ō': Goth. 'hauhs' (high), O.H.G. 'hōh'; Goth. 'dauþus' (death), O.H.G. 'tōd'; Goth. 'audags' (fortunate), O.H.G. 'ōtag' (rich); Goth. 'stautan' (push), O.H.G. 'stōzan'; Goth. 'laus' (empty), O.N. 'lauss' (free, loose), O.H.G. 'lōs' (free); Goth. 'laun' (reward), O.H.G. 'lōn'; Goth. 'hausjan' (hear), O.H.G. 'hōren'; O.N. 'haull' (hernia), O.H.G. 'hōla.'

(b) *Negative Influence*

(1) The Germ. 'a-' umlaut does not take place, if there is a nasal + cons. or 'i̯' before 'a,' 'ā,' 'o,' 'ō,' 'ē': O.N. 'svína' (subside, abate), O.H.G. 'swīnan' (decrease); also O.E. 'swindan' (waste away), O.H.G. 'swintan'; cf. O.S. 'gibundan' (bound), O.H.G. 'gibuntan' with 'gibodan,' 'gibotan,' and O.S. 'buggian' (buy) with 'giboht' (bought) [Ind.-Germ. ending '-tós'].

(2) In O.N. 'iu' before the gutturals 'g' 'k' and the labials 'p' 'f' does not become 'ió' ('jó'), but only 'iú' ('jú'). Hence, e.g. 'fliúga' (fly), Goth. 'fliugan,' O.S. and O.H.G. 'fleogan' as opposed to 'kiósa' (choose), Goth. 'kiusan,' O.S. and O.H.G. 'keosan.'

(3) In O. Upper G. the 'a-' umlaut of 'eu' to 'eo' does not take place before gutturals and labials, e.g. not in 'fliuga' (fly) as contrasted with O. Mid.-G. 'flioga.' This phenomenon, like that just mentioned in the case of O.N., is due to the fact that guttural and labial consonants are nearer to 'u' than to 'o.'

(4) In O.S. and O.H.G. the 'i-' umlaut of 'a' does not take place before certain combinations (cf. p. 40).

III. ABLAUT

Certain vowel-changes, called "ablaut," which run through the conjugation of verbs and word-building in Germanic are to be traced to sound-variations in the original Ind.-Germ. speech; these are still present in the living Germ. languages, e.g. in N.H.G. 'ich binde' (I bind), 'ich band' (I bound), 'gebunden' (bound), 'die

binde' (the band), 'das band' (ribbon), 'das bund' (band, league). The sound-variations which formed the basis of these consisted not only of changes in the character of the vowels (qualitative ablaut), but also of the shortening and lengthening of them (quantitative ablaut). Ind.-Germ. shortened syllables are known as *vanishing grade*, lengthened as *lengthened grade* and quantitatively unchanged as *full grade* syllables.

A. Qualitative Ablaut

Qualitative ablaut in Ind.-Germ. mainly affected the 'e' and 'ē' which could become 'o' and 'ō' respectively. Thus we have, e.g. Gk. λέγω (I speak) and λόγος (speech), ἀρήγω (I help) and ἀρωγός (helper). The conditions governing the change are not sufficiently known. Only so much is clear, that the innovation in certain form-categories took place regularly, especially in the root-syllable of the sing. perf. act. in contrast with the present and future. Hence we have in Gk., e.g. κέκλοφα beside κλέπτω, δέδορκα beside δέρκομαι, γέγονα beside γενήσομαι. As Ind.-Germ. 'e' remains in Germ., while 'o' becomes 'a,' we have 'e' (Goth. 'i') in the pres. and 'a' in the sing. perf. beside each other: hence, e.g. Goth. 'stilan' (steal), O.N. 'stela,' O.E., O.S. and O.H.G. 'stelan,' Goth., O.N., O.S. and O.H.G. 'stal,' O.E. 'stæl' (stole); similarly Goth. 'hlifan' (steal) corresponds etymologically to Gk. κλέπτειν and 'hlaf' to κέκλοφα.

Where Ind.-Germ. 'e' formed the first part of a diphthong, an 'o' likewise took its place as ablaut, while the second part of the diphthong remained unchanged. Thus just as κέκλοφα belongs to κλέπτω, so does λέλοιπα to λείπω and εἰλήλουθα to ἐλεύσομαι (ου was in older

Greek a real diphthong o+u). In Germ. there is the same interchange between the 'ī' of the present, from Ind.-Germ. 'ei,' and the 'ai' of the sing. perf., from Ind.-Germ. 'oi,' e.g. Goth. 'greipan' (gripe), 'graip' (griped), and similarly between 'eu' (Goth. 'iu') and 'au,' from Ind.-Germ. 'ou'; e.g. Goth. 'biudan' (bid), 'bauþ' (bade).

The changes of 'ē' and 'ō' are parallel to those of 'e' and 'o': Gk. *ῥήγνῡμι*, *ἔῤῥωγα*, Goth. 'lēta' (let), 'laí-lōt' (let, pret.).

As the Gk. *o* and *ω* interchange with *ε* and *η* respectively, so does the Germ. 'a' with 'e' and 'ō' with 'ē' (O.E. æ) in word-building: cf. Goth. 'baíran' (carry, bear), O.N. 'bera,' O.E., O.S. and O.H.G. 'beran' with Goth., O.N., O.S. and O.H.G. 'barn' (child), O.E. 'bearn'; O.E. 'blæd' (flower) with 'blóstm' (blossom), Goth. 'blōma,' O.N. 'blóme,' O.S. 'blōmo,' O.H.G. 'bluomo.'

B. Quantitative Ablaut

(a) *Shortening*

Shortening as well as total abolition of vowels occurred in unaccented syllables. The vowel-reduction is most frequently to be observed in such syllables as are immediately followed by a chief-accented syllable.

The short vowels 'e,' 'o,' 'a' were generally dropped altogether. Thus in Gk. beside the present *πέτ-εσθαι* (fly) there is the aor. *πτ-έσθαι*; in O.Ind. beside 'pa-pát-a' (has flown) [ā from Ind.-Germ. o] 'pa-pt-imá' (we have flown); in Gk. beside *πατέρ-α*, O.H.G. 'fater-,' *πατρ-ός*, Goth. 'fadr-s'; beside Gk. *ἄγ-ειν* (lead), O.N. 'aka' (drive, go), O.Ind. 'j-mán' (road). Ind.-Germ. 'g' becomes in this case 'j' in O.Ind.

If, in the syllable to be shortened, '$\underset{\frown}{\text{i}}$' or '$\underset{\frown}{\text{u}}$' stood before or after a short vowel, the 'i' or 'u' assumed syllabic function through the dropping of the vowel, i.e. 'i' arose from '$\text{e}\underset{\frown}{\text{i}}$,' '$\text{o}\underset{\frown}{\text{i}}$,' '$\text{a}\underset{\frown}{\text{i}}$,' '$\underset{\frown}{\text{ie}}$,' '$\underset{\frown}{\text{io}}$,' '$\underset{\frown}{\text{ia}}$' and 'u' from '$\text{e}\underset{\frown}{\text{u}}$,' '$\text{o}\underset{\frown}{\text{u}}$,' '$\text{a}\underset{\frown}{\text{u}}$,' '$\underset{\frown}{\text{ue}}$,' '$\underset{\frown}{\text{uo}}$,' '$\underset{\frown}{\text{ua}}$.' Thus we have in Gk. in the pres. *λείπ-εσθαι*, like *πέτ-εσθαι*, in the aor. *λιπ-έσθαι* like *πτ-έσθαι*; in the pres. *φεύγ-ειν* like *λείπ-ειν*, in the aor. *φυγ-εῖν* like *λιπ-εῖν*. And as in O.Ind., the plu. perf. 'pa-pt-imá' corresponds to the sing. perf. 'pa-pát-a,' so does 'di-diš-imá' (have exhibited) to 'di-dḗš-a,' (Ind.-Germ. 'oi̯' becomes 'ē' in O.Ind.), and 'bu-budh-imá,' (have noted) to 'bu-bṓdh-a,' (Ind.-Germ. 'ou̯' becomes 'ō' in O.Ind). To the difference between 'did-ḗša' and 'didišimá' corresponds that in Goth. between 'graip' (I griped) and 'gripum' (we griped); to that between 'bubṓdha' and 'bubudhimá' that in Goth. between 'bauþ' (I bade) and 'budum' (we bade). Unaccented Ind.-Germ. 'ai' became 'i' in Gk., cf. *ἰθαρός* (clear) with *αἴθειν* (shine); unaccented Ind.-Germ. 'au' became 'u' in O.Ind., cf. 'ugrás' (strong) with Lat. 'augēre,' Gk. *αὔξειν*, Goth. 'aukan.'

If, in the syllable to be shortened, 'r,' 'l,' 'm' or 'n' stood before or after a short vowel, the liquid or nasal became syllabic (for examples v. p. 36). Hence to the relation of the presents *λείπ-ειν*, *λείπ-εσθαι* to the aorists *λιπεῖν*, *λιπ-έσθαι* corresponds that of the presents *δέρκ-εσθαι*, *τρέπ-εσθαι*, *τέμ-νειν* to the aorists *δρακ-εῖν*, *τραπ-έσθαι*, *ταμ-εῖν*; to the relation of O.Ind. 'bubhṓd-a' to 'bubudh-imá' that of O.Ind. 'cakā́r-a' (has made) to 'cak̥r-ma,' as well as the relation of O.H.G. 'warf' (I threw) to 'wurf-um' (we threw), Goth. 'halp' (helped) to 'hulpum,' Gk. *γέγονα* to *γέγα-μεν* (with changed verbal

accent), Gk. *μέμον-α* (I remember, lit. I have remembered) [= Goth. 'man'] to *μέμα-μεν* [= Goth. 'mun-um'] and Goth. 'tramp' (stepped) to 'trump-um.'

The long vowels 'ē,' 'ō,' 'ā,' unaccented, were commonly shortened to 'ə,' rarely quite dropped. Thus with Dor. *ἵ-στᾱ-μι* (I stand), Att. *στή-λη* from **στᾱ́-λα*, Lat. 'stā-re,' cf. the perf. part. pass. O.Ind. 'sthi-tás,' Gk. *στᾰ́-τός* Lat. 'stă-tus'; with Gk. *δίδω-μι. δῶ-ρον*, Lat. 'dō-num,' cf. the part. Lat. 'dă-tus,' Gk. *δά-νος* (the gift). Likewise to the Goth. 'lētan' (let) belongs 'lat-s' (idle), O.N. 'lat-r,' O.E. 'læt,' M.L.G. 'lat,' O.H.G. 'laz' from Ind.-Germ. **'lə-dós,'* Lat. 'lassus' from Ind.-Germ. **'ləd-tós'*: the adjectives in '-o-s' had almost always end-accent in Ind.-Germ.

If, in the syllable to be shortened, a long vowel stood before or after i̯ or u̯, the 'ə' which remained from the former was contracted with the following or preceding 'i' or 'u,' which had become syllabic, into ī or ū. Thus, cf. O.Ind. 'jyā́-jams' (superior) with 'jī-tá' (overpowered); O.Lat. s-iēs (thou be), Gk. *εἶης* from **ἐσ-ιη-ς* with the plu. 's-ī-mus,' *εἶμεν* from **ἐσ-ῑ-μεν* (the chief accent lay here in Ind.-Germ. on the personal ending in the plural).

(b) *Lengthening*

The short vowels 'e,' 'a,' 'o' were often lengthened in Ind.-Germ.; the reason for this has not been with certainty ascertained. Cf. O.Bg. 'žena' (wife), O.S., O.H.G. 'quena,' Goth. 'qinō,' and Goth. 'qēns' (wife), O.N. 'kvæn' O.E. 'cwén;' O.Ind. 'jániš' (Ind.-Germ. 'ē' becomes 'ā' in O.Ind.), Lat. 'canō,' and Goth. 'hano' (cock, lit. a singer), O.N. 'hane,' O.S., O.H.G. 'hano' and O.S. 'hōn,' O.H.G. 'huon' (cock, hen) from Ind.-Germ. **'kánom.'*

As 'e' can also become 'o' and 'o' further develop into 'ō'; 'e,' 'ē,' 'o,' 'ō' can interchange with one another in the same word. Thus we have beside one another Lat. 'pedem,' 'pēs,' Gk. *πόδα*, Dor. *πώς*, Goth. 'fōtus' (foot), O.N. 'fōtr,' O.E. 'fót,' O.S. 'fōt,' O.H.G. 'fuoz,' and in addition to these O.N. 'fet' (footstep).

III. CONSONANTS

1. The Indo-Germanic Consonant-System

	Stops.				Spirants.		Semi-vowels.	Nasals.	Liquids.
	Voiceless (tenues).		Voiced (mediae).						
	Simple.	Aspirate.	Simple.	Aspirate.	Voiceless.	Voiced.			
Labials . .	p	ph	b	bh			u̯	m	
Dentals . .	t	th	d	dh	s	z		n	r,l
Palatals . .	k̂	kh	ĝ	gh		j	i̯	n̂	
Velars . .	k	kh	g	gh				ŋ	
Labiovelars .	k^v	k^vh	g^v	g^vh					

On palatals, velars and labiovelars, cf. p. 7 ff. Of the nasals only 'n' and 'm' could appear in every position, while 'n̂' occurred only before palatals, 'ŋ' only before velar and labiovelar stops; the latter corresponded to our 'n' before k, as in *bank, trunk.*

'Z' arose from 's' only when near voiced consonants.

2. The Consonants which were not changed in Germanic

The following Ind.-Germ. sounds are preserved in Germ.:—

(1) The liquids 'r,' 'l': O.Ind. 'rudhirás' (red), Gk. ἐρυθρός, Lat. 'ruber,' Goth. 'rauþs,' O.N. 'rauðr,' O.E. 'réad,' O.S. 'rōd,' O.H.G. 'rōt'; Gk. πῶλος (a foal or young animal), Lat. 'pullus' (young animal or fowl), Goth. 'fula' (foal), O.N. 'fole,' O.E. 'fola,' M.L.G. 'vole,' O.H.G. 'folo.'

(2) The nasals 'm,' 'n,' 'ŋ': Gk. μέσος, Lat. 'medius,' Goth. 'midjis,' O.N. 'miðr,' O.E. 'midd,' O.S. 'middi,' O.H.G. 'mitti'; Gk. νύξ, Lat. 'nox,' Goth. 'nahts,' O.N. 'nótt,' O.E. 'neaht,' O.S. and O.H.G. 'naht'; Lat. 'longus,' Goth. 'laggs' (long), O.N. 'langr,' O.E. 'long,' O.S. and O.H.G. 'lang' (in Norse and W.Germ. as well as in Lat. ŋ is expressed by 'n': in Gk. and Goth. by 'g').

(3) 'i̯' and 'j,' i̯ in O.Bct. 'yāre' (year), O.Bg. 'jarŭ' (the spring), Goth. 'jēr' (year), O.E. 'ȝéar' (ȝ is the symbol for 'i̯'), O.S. and O.H.G. 'jār'; 'j' in O.Ind. 'yugám' (yoke), Lat. 'jugum,' Goth. 'juk,' O.E. 'ȝeoc,' O.H.G. 'joh.' Only Gk. [in which 'h' stands for Ind.-Germ. 'i̯,' e.g. in ὥρα (season, spring, year) and ζ for Ind.-Germ. j, e.g. in ζυγόν (yoke)] on the whole necessitates a separation of the two sounds for Ind.-Germ. That these had fallen together in Germ. appears very probable from O.N., in which both sounds have disappeared initially, e.g. in 'ár' (year) and 'ok' (yoke).

(4) 'u̯' (w, written v in O.N.): O.Ind. 'véda' (I know), Gk. ϝοῖδα, Goth. 'wait,' O.N. 'veit,' O.E. 'wát,' O.S. wēt,' O.H.G. 'weiz.'

(5) 's': Lat. 'septem,' O.Bg. 'sedmĭ,' Goth. 'sibun,' O.N. 'siau,' O.E. 'siofon,' O.S. 'sibun,' O.H.G. 'sibun.'

3. The Consonantal Shiftings and Grammatical Change

In Germ. all Ind.-Germ. stops have undergone changes in the manner of their production. Following the example of Jacob Grimm, scholars call these changes "the first sound-shifting"; one of them which affects the Ind.-Germ. 's,' Grimm also called "grammatical change." As "second sound-shifting" Grimm denoted changes of a similar nature which the consonants affected by the first shifting passed through about A.D. 600 in German, mainly in High German only. According to the evidence of Germanic words in Latin writers, the first shifting was already completed before the Christian era.

The following arrangement gives the facts of the first shifting in their chronological sequence, but at the same time takes these facts into consideration in their relation to the later sound-changes which took place in the Old Germanic dialects.

(A) *First Shifting Operation*

(a) *Rule*

The Ind.-Germ. simple and aspirate voiceless stops (tenues) become voiceless spirants.

(α) *Simple Voiceless Stops*

(1) Ind.-Germ. 'p' becomes 'f': Gk. πέλλα (hide leather), Lat. 'pellis,' Goth. 'þrūts-fill' (scab), O.N 'ber-fiall' (bear-skin), O.E. 'fell' (hide), M.L.G. 'vel,'

O.H.G. 'fel'; O.Ind. 'napāt-' (descendant), Lat. 'nepōs (nephew, descendant), O.N. 'nefa,' (relative, nephew), O.E. 'nefa,' O.H.G. 'nefo.'

(2) Ind.-Germ. 't' becomes 'þ' (a voiceless interdental spirant). For this Goth. and O.N. have 'þ,' O.E. 'ð,' more rarely 'þ,' O.S. 'th' or 'ð,' O.H.G. 'th,' more rarely 'dh.' In Prim. O.N. 'þ' further develops after vowels and 'r' into the voiced interdental spirant 'ð': Goth. 'brōþar' (brother), O.N. 'bróðer'; Goth. 'waírþan' (become), O.N. 'verða.' In German 'þ' generally develops further into 'd'; this change which began in Bavarian about A.D. 750 made its way northwards very slowly, so that the Thuringian Psalms after 1130 and the Bremer statutes in 1303 still write 'th.' Still, we may regard 'd' as the normal writing in O.H.G.: O.-Ind. 'tráyas' (three), Gk. τρεῖς, Lat. 'trēs,' Goth. 'þreis,' O.N. 'þrír,' O.E. 'þrí,' O.S. 'thrie,' O.H.G. 'drī'; Lat. 'mentum' (chin), Goth. 'munþs' (mouth), O.N. 'muðr,' O.E. 'múð,' O.S. mūð, O.H.G. 'mund.'

(3) Ind.-Germ. 'k̂' becomes in Germ. by way of 'k,' 'h' (a velar spirant, like 'ch' in N.H.G. 'ach'; however, in the Germ. dialects it soon developed in most positions into a mere breath-sound): O.Ind. 'śvā́' (hound), gen. śúnas, Gk. κύων, gen. κυνός, Goth. 'hunds,' O.N. 'hundr,' O.E. and O.S. 'hund,' O.H.G. 'hunt'; O.Ind. diśáti (he shows), Gk. δείκνῡμι, Lat. 'dīco,' Goth. 'ga-teihan' (announce), O.S. 'tīhan' (accuse), O.H.G. 'zīhan.'

(4) Ind.-Germ. 'k' becomes 'h' (like k̂): Lettic 'kārs' (desirous), Lat. 'cārus' (dear), Goth. 'hōrs' (lover), O.N. 'hórr,' O.E. 'hóre' (whore), O.H.G. 'huora'; O. Ind. 'rōka' (light), Gk. λευκός, Lat. 'lūcēre,' Goth. 'liuhaþ' (light), O.E. 'léoht,' O.S. and O.H.G. 'lioht'

(5) Ind.-Germ. 'kᵛ' becomes 'ƕ,' which is represented by the undivided sign ⊙ in Goth., and seems to have still been a velar spirant with lip-rounding: Lith. 'kàs' (who), Gk. *πό-θεν* (whence), *πό-σε* (whither), Lat. 'quo-d,' Goth. 'ƕas' (who).

(β) *Aspirate Voiceless Stops*

(1) Ind.-Germ. 'ph' becomes 'f': O.Ind. 'phēnas' (foam), O.E. 'fám,' O.H.G. 'feim.'

(2) Ind.-Germ. 'th' becomes 'þ': Gk. *θρέξομαι* (I shall run), Goth. 'þragjan' (run), O.N. 'þræll' (slave), O.H.G. 'drigil.'

(3) Ind.-Germ. 'kh' becomes 'h': Albanian 'kham' from *'khabmi' (I have), Lat. 'habēre,' Goth. 'haban' (have), O.N. 'hafa,' O.E. 'habban,' O.S. 'habbian,' O.H.G. 'habēn.'

For Ind.-Germ. 'k̂h' and 'kᵛh' there are no certain examples.

(b) *Exceptions*

After voiceless spirants, the tenues do not change into these, no matter whether the spirant is inherited from Ind.-Germ. ('s'), or is only shifted from a stop ('f' and 'p,' 'h' and 'k,' both come before 't').

(α) *Simple Voiceless Stops*

(1) Ind.-Germ. 'sp' remains: Lat. 'spernere' (despise), O.N. 'sporna' (strike the foot against), O.E. 'spornan,' O.H.G. 'spornōn.'

(2) Ind.-Germ. 'st' remains: Lat. 'hostis' (lit. a stranger), O.Bg. 'gostĭ' (guest), Goth. 'gasts' (stranger, guest), O.N. 'gestr,' O.E. 'giest,' O.S., O.H.G. 'gast.'

(3) Ind.-Germ. 'sk̂' appears as 'sk': Lith. 'maiszýti' (mix), Lat. 'miscēre,' O.E. 'miscian,' O.H.G. 'miskan.'

(4) Ind.-Germ. 'sk' remains: O.Ind. 'kavíṣ' ['k' for initial 'sk' already in Ind.-Germ.] (prudent), Gk. θυοσκόος (the sacrificing priest), Goth. 'us-skawjan' (refl. awake), O.N. 'skygna' (spy), O.E. 'scéawian' (scrutinise), O.S. 'skauwōn,' O.H.G. 'scouwōn.'

(5) For Ind.-Germ. 'skᵛ' there are no certain examples.

(6) Ind.-Germ. 'pt' becomes 'ft': Gk. κλέπτης, Goth. 'hliftus.'

(7) Ind.-Germ. 'k̂t' becomes 'ht': O.Ind. 'rjú-' (straight, right), Gk. ὀρεκτός, Lat. 'rectus,' Goth. 'raíhts' (right), O.E. 'ríht,' O.S., O.H.G. 'reht.'

(8) Ind.-Germ. 'kt' becomes 'ht': O.Ind. 'náktiṣ' (night), Lat. 'nox,' gen. 'noctis,' Goth. 'nahts,' O.E. 'neaht,' O.S., O.H.G., 'naht.'

(9) Ind.-Germ. 'kᵛt' becomes 'ht': to the Lat. 'sequi' (follow), Goth. 'saíhvan' (= see, really = follow with the eyes) are related O.S. and O.H.G. 'gisiht' (sight) formed with the very common Ind.-Germ. abstract-suffix '-ti-.'

(β) Aspirate Voiceless Stops

The Ind.-Germ. aspirate voiceless stops appear in Germ. after spirants as simple voiceless stops.

(1) Ind.-Germ. 'sph' becomes 'sp': O.Ind. 'sphyás' (wedge), Gk. σφήν, O.N. 'spǫ́nn' (chip), O.E. 'spón,' O.H.G. 'spān.'

(2) Ind.-Germ. 'sth' becomes 'st': O.Ind. 'pr̥ṣṭhám' (back, point) O.E. and O.H.G. 'first' (ridge of a roof).

(3) Ind.-Germ. 'skh' becomes 'sk': Lith. 'skẽdžiu' (I divide), Gk. σχίζω (I split), O.N. 'skíta' (cacāre), O.E. 'scítan' O.H.G. 'scīzan.'

(4) Ind.-Germ. 'pth' becomes 'ft': cf. Goth. 'hlifan' (steal, cf. Lat. 'clep-ere,' Gk. κλέπ-τειν) with 2 sing. perf. indic. 'hlaft' in which the 't' represents the Ind.-Germ. ending '-tha' (O.Ind. '-tha,' Gk. -θα).

(5) Ind.-Germ. 'kth' becomes 'ht,' cf. Goth. 'slahan' (strike) with 'h' from 'k' with 2 sing. perf. 'slōht.' For the rest there are no certain examples.

B. *Second and Third Shifting Operations*

The second and third shifting operations are so far in agreement that their results are voiced spirants. The latter partly come from the Ind.-Germ. aspirate voiced stops (mediae) and partly from the voiceless spirants (which for the most part arose in P.Germ. only through the first shifting operation). Which of the two shiftings took place first or whether both came about simultaneously cannot be established.

The voiced spirants 'þ,' 'ð,' 'ʒ' that had thus arisen passed through, partly already in P.Germ. and partly in the Germ. dialects, a series of further changes which are given here so that the examples of the operations of sound-shifting may be better understood.

(a) *Later Changes of the Voiced Spirants*

(α) *Prim. Germanic*

In P.Germ. 'þ,' 'ð,' 'ʒ' became after nasals the simple-voiced stops (mediae) 'b,' 'd,' 'g'; 'þ' and 'ð' also became 'b' and 'd' initially. In the case of the labials

and dentals these differences are also seen in the writing of most dialects:

(1) In Goth. the sounds 'þ' and 'b,' 'ð' and 'd,' fall together in writing as 'b' and 'd' respectively, but 'b' finally and before 's' is changed into 'f' and 'd' after vowels into 'þ,' but not after 'm' or 'n.' Thus beside 'graban' (dig) we have 'grōf' (dug), beside 'hlaibōs' (loaves), 'hlaifs' (bread), but beside 'lambis' (of the sheep), 'lamb' (the sheep), beside 'dumba' (the dumb), 'dumbs' (dumb), as well as beside 'biudan' (bid), 'bauþ' (bade), beside 'stadis' (of the place), 'staþs' (the place), but beside 'hundis' (of the hound), 'hund' (the hound, acc.), 'hunds' (nom.): only voiced spirants, not stops, could be changed into the voiceless spirants 'f,' 'þ.' That 'b' was also initially a stop in Goth. is proved by the constant 'b' representing it initially in Gothic names in Latin writers: e.g. 'Berig,' 'Brandila,' 'Butila,' while 'v' as a rule represents it medially after vowels, as in 'Erilieva,' 'Gevica.' Initial 'd' is by analogy to be taken as a stop.

(2) O.N. writing also distinguishes between 'b' initially and after 'm,' between 'f' (for the voiced aspirant, no longer bilabial but labiodental) after vowels, 'r' or 'l,' as well as between 'd' initially and after 'n' and between 'ð' after vowels or 'r': 'bera' (carry, bear), 'kambr' (comb), 'grafa' (dig), 'arfr' (heir), 'sjalfr' (self); 'dagr' (day), 'hundr' (hound), 'bjoða' (bid), 'garðr' (enclosure).

(3) O.E. makes a distinction in the case of a labial, like O.N. 'beran,' 'comb,' gen. 'combes,' 'grafan,' 'yrfe,' 'sylf,' gen. 'sylfes.'

(4) O.S. only writes 'b' for the voiced labial stop: 'u' 'v' as well as 'b' for the voiced spirant 'b.'

Thus we have always 'þeran,' 'umbi' (about), but 'heþan' (heaven), 'ouer' (over), 'gilōvian' (believe), as well as 'gilōbestu' (believest thou), 'hwerþan,' 'hweruan' (walk), as well as 'umbitherbi' (useless), 'selbo' (self), 'oluundeon' (camel), as well as 'olbendeon.' Finally the voiced spirant becomes 'f,' the voiced stop remains 'b': 'grōf' (dug), 'hwarf' (walked), 'self' (self), but 'lamb.'

(5) Of the O.H.G. dialects Mid-Franconian distinguishes between initial stop and medial spirant after a vowel: 'beran' (bear), but 'gevan' (give); hence 'gaf' (gave).

The P.Germ. voiced guttural spirant is written 'g' in Goth., O.N., O.S. and O.M.G., mostly 'ȝ' in O.E., more rarely 'g,' without any analogous difference being made as in the case of the corresponding labials and dentals. For 'g,' 'ȝ' after 'ŋ' [e.g. in Goth. 'laggs' (long), O.N. 'langr,' O.E. 'long,' O.S., O.H.G. 'lang'], we have, however, on account of the pronunciation in the living dialects and the analogy of 'mb' and 'nd,' to assume a stop; on the other hand, 'ȝ,' 'g' initially was still a spirant in O.E. and O.S., as it had the same value as initial 'j' in alliterative poetry.

(β) *Individual Dialects*

(1) In Goth. and O.N. (hence perhaps already in Goth.-Norse) initial 'ȝ' becomes 'g.' This, as regards Goth., is inferred from Goth. names, in Latin works, with 'c' (='k') beside 'g,' as 'Caina' beside 'Gaina' and 'Commundus' for *'Gummundus'; as regards O.N. it is inferred from the living dialects.

(2) In Goth. 'þ' becomes 'b' even after liquids, and 'ð,' 'd,' as again the writing, finally and before 's,'

shows (cf. p. 54): 'swaírban' (wipe), 'swarb' (wiped); 'halba' (half), 'halbs' (half. adj.), 'gardis' (of the house), 'gards' (the house); 'haldan' (hold), 'haíhald' (held).

(3) In O.N. 'ð' after 'l' becomes 'd': 'halda' (hold).

(4) In W.Germ. 'ð' in every position becomes 'd'; later, on account of the second sound-shifting, it further changes in O.H.G. (Upper German, East Franconian and Thuringian) into 't': O.E. 'dæg' (day), O.S., Mid.- and Rhenish-Franconian 'dag,' otherwise 'tag' in O.H.G.; O.E. 'béodan' (bid), O.S., Mid.- and Rhenish-Franconian, 'biodan,' otherwise 'biotan' in O.H.G.; O.E. 'geard' (garden), O.H.G. 'gart' (district).

(5) In O. Upper G. 'þ' becomes a stop everywhere, as its writing as 'b,' in O.Bavarian even as 'p,' shows: 'geban' (give), 'gab' (gave), O.Bav.: 'gepan,' 'gap.' In East and Rhenish-Franconian also the O.H.G. 'b' is written in this case; but perhaps it is not a stop that is meant here, but a soft spirant that is still heard in Middle Germany.

(6) 'ȝ' generally becomes a stop in O. Upper G., and is written 'k' and 'g': cf. 'kip' and 'gib' (give). How far in O.M.G., in which only 'g' prevails, is the spirant or stop to be accepted, is not clear.

(7) Where 'þ' and 'ȝ' (before 'i̯' and 'n') are lengthened in W.Germ., they become long stops, which are expressed in writing by doubling. This appears first in the spelling 'bb' in O.E. and O.S. and 'cg' in O.E., and secondly in the shifting of 'bb' to 'pp' in O.H.G. and of 'gg' to 'kk' (ck) in at least O. Upper G.: Goth. 'sibja' (kindred), O.E. 'sibb,' O.S. 'sibbia,'

O.H.G. 'sippea,' 'sippa,' N.H.G. 'sippe'; Goth. 'lagjan' (lay), O.E. 'lecgan,' O.S. 'leggian,' O.M.G. 'leggen,' O. Upper G. 'leckan.'

(b) *The Ind.-Germ. Aspirate Voiced Stops* (*mediae*)

(1) 'bh': O.Ind. 'bhárāmi' (I carry), Gk. *φέρειν*, Lat. 'ferre,' Goth. 'baíran,' O.N. 'bera,' O.E., O.S., O.H.G. 'beran;' O.Ind. 'nábhas' (mist), Gk. *νέφος*, *νεφέλη*, Lat. 'nebula,' O.N. 'niflheimr' (mist-world), O.E. 'nifol' (dark), O.S. 'nebal' (mist), O.H.G. 'nebul.'

(2) 'dh': O.Ind. 'vásu-dhitiš' (treasury), Gk. *θέσις* (position, site), Goth. 'ga-dēds' (deed), O.N. 'dǫ́ð,' O.E. 'dǽd,' O.S. 'dād,' O.H.G. 'tāt;' O.Ind. 'rudhirás' (red), Gk *ἐρυθρός*, Goth. dat. sing. fem. 'raudai,' O.N. 'rauðr,' O.E. 'réad,' O.S. 'rōd,' O.H.G. 'rōt.'

(3) '$\widehat{g}$h': O.Ind. 'hasás' (wild goose), Lith. 'zasìs' (goose), Gk. *χήν*, Lat. 'anser,' from *'hanser' from *'ghanser,' O.N. 'gós,' O.E. 'gós,' O.H.G. 'gans'; O.Ind. 'váhāmi' (I travel), O.Bg. 'veza,' Lat. 'vehō,' Goth. 'ga-wigan' (move), O.N. 'vega,' O.E. 'wegan' (carry), O.H.G. 'wegan.'

(4) 'gh': O.Bg. 'gostĭ' (guest), Lat. 'hostis' (enemy, really stranger), Goth. 'gasts' (guest), O.N. 'gestr,' O.E. 'giest,' O.S. and O.H.G. 'gast;' O.Ind. 'stighnṓmi' (I spring up), Gk. *στείχω* (I step), Lettish 'stiga' (a path), Lat. 've-stīgium' (footstep), Goth. 'steigan' (mount), O.N. 'stíga,' O.E. 'stígan,' O.S. and O.H.G. 'stīgan.'

(5) 'g^{v}h': Gk. *ὀμφή*, from 'song^{v}hā́' (voice), Goth. 'siggwiþ' (he sings), O.N. 'syngr,' from *'siŋgwiR.'

(c) *The Ind.-Germ. Voiceless Spirants*

The voiceless spirants 'f,' 'þ,' 'h,' 's' become medially and finally the voiced 'b,' 'ð,' 'ʒ,' 'z,' unless, according to Ind.-Germ. accentuation, the immediately preceding vowel bore the chief accent (Verner's Law).

The 'z' is preserved medially only in Goth.: in W.Germ. it becomes 'r,' in Norse 'R' (palatal 'r') which in Prim. O.N. was separated from the common 'r,' e.g. in 'Hlewa-gastiR' [= Goth. '-gasts' (guest), with 's' for final 'z'] and 'swestar, [= Goth. 'swistar' (sister)]; but R and r fall together in O.N., hence 'gestr' and 'syster.'

(1) Ind.-Germ. 'p.': O.Ind. 'saptá' (seven), Gk. ἑπτά, Goth. 'sibun,' O.E. 'siofon,' O.S. 'siƀun,' O.H.G. 'sibun.'

(2) Ind.-Germ. 't': O.Ind. 'kētúṣ' (image, form), Goth. 'haidus' (sort), O.E. 'hád,' O.H.G. 'heit.'

(3) Ind.-Germ. '$\widehat{k}$': O.Ind. śvaśrúṣ (mother-in-law), Gk. ἑκυρά, O.E. 'sweger,' O.H.G. 'swigar.'

(4) Ind.-Germ. 'k': O.Ind. 'aŋkás' (neck), Goth. 'hals-agga' (nape).

(5) Ind.-Germ. 's': O.Ind. 'rájas' (darkness), Gk. ἔρεβος, Goth. gen. 'riqiz-is,' O.N. 'røkkr.'

(d) *Grammatical Change*

As in Ind.-Germ. forms which were related had very frequently different accents, voiceless spirants interchange in Germ. with voiced ones in a great many of these forms. This phenomenon, known as grammatical change, occurs especially in the following cases:—

(1) In the most extensive class of verbs in Ind.-Germ.

the chief accent was borne by the root syllable in the pres. and in the sing. ind. perf. act. but by the personal ending in the plu. ind. perf. act. and the suffix in past part. mid. Cf. O.Ind. bṓdhāmi (I note), 'bubṓdha' (I have noted), bubudhimá (we have noted), bubudhānás (noted, part.). Corresponding to this, voiceless spirants which are final in a root are preserved in Germ. in the pres. and sing. perf. ind., but in the plu. perf. and past. part. they have become voiced. Gothic alone has everywhere re-established the voiceless sounds by analogy, while the other dialects have only in the case of some forms disturbed the phonological relation through formations by analogy. In O.N. the distinction among the 't-' sounds was removed by every medial and final 'þ' becoming 'ð,' e.g. 'bróðer' (brother), Goth. 'brōþar,' O.S. 'brothar.' In the following table the forms due to analogy are in brackets.

	Pres.	Sing. perf.	Plu. perf.	Part. perf.
Goth.	leiþan (go).	laiþ.	(liþum).	(liþans).
O.N.	líða.	leið.	liðom.	liðenn.
O.E.	líðan.	láð.	lidon.	liden.
O.S.	līthan.	lēth.	lidun.	gilidan.
O.H.G.	līdan.	leid.	litum.	gilitan.
Goth.	slahan (strike).	slōh.	(slōhum).	(slahans).
O.N.	slá ⎫ from	slō < *slōh.	slógom.	slegenn.
O.E.	sléan ⎭ *slahan.	(slóg).	slógon.	slegen.
O.S.	slahan.	(slóg).	slōgon.	gislagan.
O.H.G.	slahan.	sluoh.	sluogum.	gislagan.
Goth.	kiusan (choose).	kaus.	(kusum).	(kusans).
O.N.	kiósa.	kaus.	kørom.	kørenn.
O.E.	céosan.	céas.	curon.	coren.
O.S.	keosan.	kōs.	kurun.	gikoran.
O.H.G.	kiosan.	kōs.	kurum.	gikoran.

	Pres.	Sing. perf.	Plu. perf.	Part. past.
Goth.	hafjan (heave).	hōf.	(hōfum).	(hafans).
O.E.	(hebban).	hóf.	hófon.	hafen.
O.S.	heffian (hebbian).	hōf.	hōbun.	of-haƀan.
O.H.G.	hėffen.	(huob.)	huobum.	ir-haban.

The interchange between 'f' and 'ƀ,' which is the least clearly preserved in conjugation, is found in the Goth. 'þarf' plu. 'þaúrbum,' since this perf. with present meaning has not undergone the general levelling of those with pret. meaning.

(2) In Ind.-Germ. the causatives, formed from verbs accented on the root-syllable, had their accent on the first suffix-vowel: O.Ind. svápāmi (I sleep), 'svāpáyāmi' (I cause to sleep). This is also reflected in Germ. in the interchange of spirants: Goth. 'leiþan' (go), O.E. 'líðan,' O.S. 'līthan,' O.H.G. 'līdan,' but O.E. 'lǽdan' from *'laidjan' (cause to go, lead), O.S. 'lēdian,' O.H.G. 'leiten': Goth. 'ganah' (it is sufficient), O.E. 'geneah,' O.H.G. 'ginah': O.N. 'gnǿgja' (satisfy) O.H.G. 'ginuogen.' Goth. 'ganisan' (recover, be saved), O.E. 'genesan,' O.S., O.H.G. 'ginesan,' but O.E. 'nerigan' (save), O.S. 'nerian,' O.H.G. 'nėrien.'

(3) In other verbal derivatives there appear only scattered traces of the change, as analogy-formations have made greater inroads here. Still there is, e.g. in Goth. beside 'faheþs' (joy), 'faginōn' (enjoy), formed with Ind.-Germ. -nā́- like O.Ind. 'mṛnā́ti' (he crushes), and beside Goth. 'wisan' (be), 'wizōn' (live, feast), extended with Ind.-Germ. '-ā-' like Dor. τλ-ᾶναι (to suffer), hence the vanishing grade of the root.

(4) Such remains are also found in substantive derivatives. The Ind.-Germ. adjectives were generally ac-

cented on the suffix in the positive and on the root-syllable in the comparative: O.Ind. 'svādúṣ' (sweet), Gk. ἡδύς, O.Ind. 'svādīyas-' (sweeter), Gk. neut. ἥδιον. Hence Goth. 'juggs' (young) [O.Ind. 'yuvaśás'], 'jūhiza' from *'juŋhiza' (younger); also O.H.G. 'ėlthiron' (parents, lit. the older ones) has preserved the difference from 'alt' (old), while 'altiro' (older) has been assimilated to the positive.

(5) There was also in Ind.-Germ. an interchange of accent among the several cases, since sometimes the root-syllable, sometimes the stem-forming suffix or case-ending was accented: Gk. πά-τερ, πα-τήρ, πα-τέρ-α, πα-τρ-ός. The sound-change produced by this in Germ. has been almost everywhere removed by analogy-formation, still in such a way that often in the same word both the voiceless and the voiced sounds have persisted: thus forms with the same meaning have arisen for all the cases, and these have generally spread among the different dialects, but sometimes they have diverged in their meaning: O.H.G. 'grāfio,' 'grābio' (count); Goth. 'dauþs,' gen. 'dauþis' (dead), O.E. 'déad,' O.S. 'dōd,' O.H.G. 'tōt'; Goth. 'hauhs' (high), O.E. 'héah,' O.S., O.H.G. 'hōh,' O.N. 'haugr' (hill), M.H.G. 'houc,' gen. 'houges'; Goth. 'asans' (harvest), O.H.G. 'aran.'

(e) *Exceptions to Verner's Law*

If a voiceless spirant stands before another voiceless sound, the latter prevents the former from becoming voiced. 'ft,' 'hs,' 'ht,' 'sp,' 'st,' 'sk' are therefore unaffected by Verner's Law. O.Ind. 'aṣṭáu' (eight), Gk. ὀκτώ, Goth. 'ahtau,' O.E. 'eahta,' O.S., O.H.G. 'ahto.' Past part. O.E. 'borsten,' O.H.G. 'gibrostan' of O.E. 'berstan' (to burst), O.H.G. 'brestan.'

Long 's' ('ss') never becomes voiced: Goth. 'un-wiss' (uncertain), O.N. 'viss' (certain), O.H.G. 'gewis' (Adv. 'giwisso') from *'u̯it-tó-s,' past part. of Goth. 'witan' (know).

(C) *Last Shifting Operation*

The Ind.-Germ. voiced stops (mediae) 'b,' 'd,' 'g,' 'g^v' become voiceless (tenues) 'p,' 't,' 'k,' 'k^v.'

The sounds that have thus arisen undergo later in O.H.G. the *second sound-shifting*. They are changed initially, after consonants and when they are long, into affricatae (i.e. tenues + spirants), after vowels into long spirants, which, however, are shortened finally. The shifting to affricatae was completely carried out only in O. Upper G.; in O.M.G. it is variously graduated.

(1) Ind.-Germ. 'b' becomes 'p' in Germ., which is shifted to 'pf,' 'ff,' or 'f' in O.H.G. (in Thuringian Germ. 'pp' and 'mp' remain unshifted, in Rhenish-Franconian also initial 'p,' in Mid-Franconian 'rp' and 'lp'): Thracian *βαίτη* (shepherd's coat), Goth. 'paida' (coat), O.E. 'pád,' O.S. 'pēda,' O.H.G. 'pfeit'; Lat. 'labium,' 'labrum,' O.S. 'lepor' (lip), O.H.G. 'leffur'; Lith. 'dubus' (deep, hollow), Goth. 'diups' (deep), O.N. 'diúpr,' O.E. 'déop,' O.S. 'diop,' O.H.G. 'tiof.'

(2) Ind.-Germ. 'd' becomes 't' in Germ., which is shifted in O.H.G. to the affricata z (ts) or to the long spirant 'zz' or to the short spirant 'z.' The spirant 'z' was a voiceless 's-' sound, different from the ordinary voiceless 's,' and the affricata which was hardly ever separated from it in writing, consisted of a 't' and this 's-' sound (only the Rhenish-Franc. Isidor in the eighth century

distinguishes orthographically between 'z' as affricata [for Germ. 'tt' even 'tz'] and 'zss' as long, and 'zs' as short spirant): Gk. *δέκα*, Lat. 'decem,' Goth. 'taíhun,' O.N. 'tío,' O.E. 'tíen,' O.S. 'tehan,' O.H.G. 'zehan'; Gk. *κλάδος* (branch), O.Bg. 'klada' (timber), O.N., O.E. 'holt' (wood, thicket), O.H.G. 'holz'; Gk. *ἔδομαι*, Lat. 'edere,' Goth. 'itan' (eat), O.N. 'eta,' O.E., O.S. 'etan,' O.H.G. 'ezzan': O.N. 'át' (ate), O.E. 'æt,' O.S. 'āt,' O.H.G. 'āz.'

(3) Ind.-Germ. 'ĝ' passes over 'g' to 'k,' which is shifted in O.H.G. to the affricata 'kh' ('k'+'ch' in N.H.G. 'ach,' generally written 'ch') or to the long spirant 'hh' (long 'ach-' sound, also written 'ch' later) or to the short spirant 'h' (short 'ach-' sound): the affricata exists, however, only in O. Upper G.; in O.M.G. it is represented by 'k': O.Ind. 'jā́nu' (knee), Gk. *γόνυ*, Lat. 'genu,' Goth. 'kniu,' O.N. 'kné,' O.E. 'cnéo,' O.S. 'knio,' O.M.G. 'kniu,' O. Upper G. 'chniu'; O.Ind. 'mr̥jā́mi' (I strike off), Gk. *ἀμέλγω* (I milk), Lat. 'mulgeo,' O.N. 'molka' (milk), O.E. 'melcan,' M.L.G. 'melken,' O.M.G. 'melkan,' O. Upper G. 'melchan'; O.Ind. 'ájras' (pasture), Gk. *ἀγρός* (field), Lat. 'ager,' Goth. 'akrs,' O.N. 'akr,' O.E. 'æcer,' O.H.G. 'ahhar.'

(4) Ind.-Germ. 'g' becomes 'k,' which is naturally shifted in O.H.G. like the 'k' from 'ĝ': Lith. 'garnỹs' (stork), Gk. *γέρανος* (crane), O.E. 'cran,' O.S. 'crano,' O. Upper G. 'chranuh'; O.Ind. 'yu-gám' (yoke), O.Bg. 'igo,' Gk. *ζυγόν*, Lat. 'jugum,' Goth. 'juk,' O.N. 'ok,' O.E. 'geoc,' O.H.G. 'joh,' gen. 'johhes.'

(5) Ind.-Germ. 'g^{v}' becomes 'k^{v},' which is represented in Goth. by 'k' with simultaneous lip-rounding marked by the sign u and written 'q' by us: O.Ind. 'jīvás'

(living), Lith. 'gývas,' Lat. 'vīvus,' O.Ir. 'bíu,' Goth. 'qius'; O.Ind. 'rájas' (darkness), Gk. ἔρεβος, Goth. 'riqis.'

(4) Changes in the Place of Production

Under this comes the falling together of the palatals and velars in the *centum*-languages. More complicated are the changes of the labiovelars.

(A) *Labiovelars in P.Germanic*

(a) The labiovelars become simple velars in the following cases (in these therefore, as the velars also experienced sound-shifting, 'k^{v}' is represented according to Verner's Law by 'h' or 'ʒ,' 'g^{v}' by 'k,' 'g^{v}h' by 'ʒ'):

(1) before, 'u,' 'ū': O.Ind. 'kū' (where), Cret. ὅ-πυι, Umbrian 'pue,' Lat. 'ali-cubi,' O.E., O.Franc., O.Norw. 'hū' (how); O.Ind. 'gurúš' (heavy), Gk. βαρύς, Goth. 'kaúrus.'

(2) before all consonants initially, and also before most medially: O.Ind. 'kr̥p-,' Lat. 'corpus,' O.Ir. 'cruth' (form), Welsh 'pryd' (species) [the labial 'p' points to Ind.-Germ. k^{v}], O.E. 'hrif' (womb), O.H.G. 'href'; Lat. 'inseque' (announce), Gk. ἔννεπε, Lith. sakýti (say), O.N. 'segia' (this i is i̯, hence a consonant).

(3) Ind.-Germ. 'g^{v}h' always initial: O.Ind. 'hánmi' (I strike), Gk. θείνω, φόνος, O.N. 'gunnr' (fight), O.E. 'gūð,' O.H.G. 'gund.'

(b) Germ. 'ʒ^{v}' (from Ind.-Germ. 'g^{v}h' and 'k^{v},' according to Verner's Law) becomes 'w,' if the preceding vowel is still unaccented according to the Ind.-Germ. system of accentuation: Gk. ἀλκυών, from *'su̯alk^{v}ōn' (halcyon), O.E. 'swealwe' (swallow), O.H.G. 'swalawa.'

(B) *The Labiovelars in the Individual Dialects*

(1) In Nor. and W.Germ. the labiovelars are resolved into velars and labials, thus 'kᵛ' into 'kw,' 'ḫᵛ' into 'hw,' 'ǯᵛ' into 'ǯw': Goth. 'qiþan' (say), O.N. 'kveða,' O.E. 'cweðan,' O.S. 'quethan,' O.H.G. 'quedan.' Goth. 'ḫwaiteis' (wheat), O.N. 'hveite,' O.E. 'hwǽte,' O.S. 'hwēti,' O.H.G. 'hweizi.'

(2) 'ǯᵛ' or 'gᵛ' is resolved in Goth. into 'ǯw' or 'gw': Goth. 'siggwan' (sing), O.N. 'syngua.'

(3) In W.Germ. ǯw becomes ǯ; O.E. 'singan,' O.H.G. 'singan.'

(4) In Nor. and W.Germ. 'ḫᵛ' between two vowels becomes 'h,' which later, like every intervocalic 'h,' disappears in O.N. and O.E.: Goth. 'saiḫᵛan' (see), O.S., O.H.G. 'sehan,' O.N. 'siá,' O.E. 'séon.'

As ǯᵛ becomes 'w' only after a preceding unaccented syllable, there occurs grammatical change between 'h' and 'w' in W.Germ. where kᵛ stood in Ind.-Germ. (In Nor. there is no difference present, as 'w' disappeared in it as well as 'h' in the positions in question.) Hence, e.g.:

	Pres.	Sing. perf.	Plu. perf.	Part. past.
Goth.	saiḫᵛan.	saiḫᵛ.	(seḫᵛum).	(saiḫᵛans).
O.E.	séon.	seah.	sáwon.	sewen.
O.S.	sehan.	sah.	sāwun.	gisewan.
O.H.G.	sehan.	sah.	(sāhum).	gisewan.

The analogy-forms are in brackets.

5. Assimilation of Consonants

In P.Germ. various assimilations, both total and partial, of consonants to neighbouring consonants have taken place. In the case of total assimilation the place of two consonants is taken by a single one lengthened, which is denoted in writing by doubling; in the case of partial assimilation the sound of one consonant only approaches that of another. According as a sound is assimilated to a following or a preceding one, assimilation is called progressive or regressive; partial assimilation in P.Germ. is only progressive.

(A) *Total Assimilation*

(a) *Progressive*

(1) The dental voiced spirant, i.e. both the post-dental 'z' and the interdental 'ð' (which arose through the sound-shifting) assimilate with a following 'l'; in the former case 's' first became voiced before 'l,' because 'l' itself is a voiced sound; that is to say, partial assimilation took place. Gk. κρύος (frost) from *κρύσος (cf. κρύσ-ταλλος = ice), O.N. 'hrjósa' (shudder), 'hrolla' (tremble) from *'hrozl-' from *'hrosl-'; O.Ind. 'sthátram' (stand), O.E. 'staðol' (barn), O.H.G. 'stadal' from *'stáþlo-,' O.N. 'stallr' (stall, stable), O.E. 'steall,' O.H.G. 'stal,' gen. 'stalles' aus 'staðló-.'

(2) z assimilates also with a following 'm,' after it had developed from 's' before this voiced sound: O.Ind. 'tásmāi' (to the or that), 'ásmāi,' Umbrian 'esmei' (to this), Goth. 'þamma' (to the, that).

(b) *Regressive*

(1) u̯ assimilates with a preceding 'n': O.Ind. 'rin-vā́mi' (let flow), Goth., O.S., O.H.G. 'rinnan' (run, flow).

(2) 'n' assimilates with a preceding 'l.' O.Ind. ū́rna (wool), Lith. 'vìlna,' O.Bg. 'vlŭna,' Goth. 'wulla,' O.N. 'ull'; O.E. 'wull,' M.L.G. 'wulle,' O.H.G. 'wolla.'

(3) Already before the last shifting operation, 'n' assimilated with preceding 'b,' 'd,' 'g,' when it, according to Ind.-Germ. accentuation, stood before the chief-accented vowel. The 'bb,' 'dd,' 'gg' which thus arose were shifted to 'pp,' 'tt,' 'kk' at the time when 'b,' 'd,' 'g' passed into 'p,' 't,' 'k.'

'n' in a similar position assimilated with preceding 'þ,' 'ð,' 'ʒ' (from Ind.-Germ. 'bh,' 'dh,' 'ĝh,' 'gh,' or 'p,' 't,' 'k,' 'k̂,' according to Verner's Law): the 'þþ,' 'ðð,' 'ʒʒ' which thus arose passed into 'bb,' 'dd,' 'gg' before the last Germanic shifting operation and then developed through this into 'pp,' 'tt,' 'kk.'

Later the High German sound-shifting developed from 'pp,' 'tt,' 'kk' affricatae with a long tenuis 'ppf,' 'tz,' 'cch' (i.e. long k+'ach-' sound), but 'pf,' 'ch,' are generally written for 'ppf' and 'cch' respectively. 'tz' as the affricata with a short tenuis is distinguished from 'z' almost only in Isidor (cf. pp. 62, 63). Further, the shifting of 'kk' extends only over Upper German; that of 'pp' only over Upper German and East Franconian.

Cf. Lith. 'dubùs' (deep, hollow), Goth. 'diups' (deep), with O.E. 'doppa' (diving bird), M.L.G. 'dop,' 'doppe' (concave curve), O.H.G. 'topf' (pot)—Ind.-Germ. *'dubnós'; O.Bg. 'kypēti' (hop) with O.N. 'hoppa,' O.E.

'hoppian,' M.H.G. 'hopfen' (Ind.-Germ. *'kup-n'); Lith. 'kõdas' (top), O.E. 'hód' (hat), O.H.G. 'huot' with O.N. 'hǫttr' (hat), O.E. 'hætt' (Ind.-Germ. *kadh-nó-); Gk. λύγος (osier) with Lith. 'lugnas' (pliable), O.N. 'lokkr' (curl), O.E. 'locc,' O.H.G. 'loc' gen. O.M.G. 'lockes,' O.Upper G. 'locches'; Goth. 'bi-laigōn' (lick) with Gk. λιχνεύειν, O.E. 'liccian,' O.S., O.M.G. 'leccōn,' O.Upper G. 'lecchōn' [according to the evidence of O.Ind., the chief accent in Ind.-Germ. lay on the 'n-' suffixes of the presents].

If the chief accent lay on the syllable preceding 'n,' this did not assimilate: O.Ind. 'svápnas' (sleep), Gk. ὕπνος, O.E. 'swefn.'

(B) *Partial Assimilation*

(1) A nasal assimilates with a following stop in regard to the place of production. Thus especially the labial 'm' before the dental 'd' has become the dental 'n': Gk. ἄμαθος (sand) from *σάμαθος, N.H.G., Bav. 'sampt,' from *'samet,' but O.N. 'sandr,' O.E. 'sond,' O.S. 'sand,' O.H.G. 'sant.'

(2) Where an Ind.-Germ. 'z' was followed by a voiced stop (media), the 'z' itself became voiceless (viz. s) at the shifting of the media: Lat. 'nīdus' (nest), Lith. 'lìzdas' (Ind.-Germ. *'nizdo-s') O.E., O.H.G. 'nest'.

6. Consonant Lengthening

(A) *Prim. Germanic Lengthening*

The semi-vowels i̯ (j) and u̯ (w) are lengthened into the double sounds 'i̯i̯' ('jj') and 'u̯u̯' ('ww') after a short chief-accented vowel in Germanic. In W.Germ. the first 'i̯' or 'u̯' is fused with a preceding vowel into

a diphthong, if the vowel is of a different character in sound; if the vowel has the same character the result is a long vowel. In Goth.-Nor. there develops both from 'i̯' before 'i̯' and from u̯ before u̯ a long 'g' ('gg'), which then before 'i̯' in East Germ. passes into a long 'd' ('dd'): O.Ind. 'dváyōs' (of two), O.H.G. (in Isidor) 'zweiio,' O.N. 'tveggja,' Goth. 'twaddjē'; O.Ind. 'priyá' (beloved), O.H.G. 'Frīja' (consort of the highest god), O.E. 'Frīg,' O.N. 'Frigg,' gen. 'Friggjar'; Lith. 'kau-ju' (I strike, forge), O.Bg. 'kovą' (I forge), O.H.G. 'houwan' (hew), O.S. 'hauwan,' O.E. 'héawan,' O.N. 'hǫggva'; Gk. *θυο-σκόος* (sacrificing priest) from **σκόϝος*, O.H.G. 'scouwōn' (look), O.S. 'skauwōn,' O.E. 'scéawian,' besides the vanishing grade Goth. 'skuggwa' (mirror), O.N. 'skugg-siá' (mirror), 'skugge' (shadow) ['w' has disappeared here], O.E. 'scúwa' (shadow), O.H.G. 'scūwo.'

Frequently the lengthening does not take place, for reasons unknown. Thus we have beside O.H.G. 'Frīja,' Goth. 'frijōn' (love), O.N. 'frjá,' Goth. 'frijōnds' (friend), O.S. 'friund,' O.H.G. 'friunt'; beside O.N. 'hǫggva,' Goth. 'hawi' (hay), O.H.G. 'hėwi.'

(B) *West Germanic Lengthening*

Consonant-lengthening has taken place in W.Germ. before various sounds. The 'pp,' 'tt,' 'kk,' thus produced, were naturally affected by the High Germ. sound-shifting exactly like the 'pp,' 'tt,' 'kk' which arose in P.Germ.

(1) Before 'i̯' ('j') every consonant is lengthened. The 'i̯' itself is generally preserved only in O.S. and in O.H.G. only in the oldest period; in O.E. it had dis-

appeared before the time of any remains that have come down to us: Goth. 'kunjis' (of the race), O.N. 'kyns,' O.E.' cynnes,' O.S. 'kunnies,' O.H.G. 'kunnes'; Goth. 'hlahjan' (laugh), O.N. 'hlæja,' O.E. 'hliehhan,' O.S. 'hlahhian,' O.H.G. 'hlahhen'; Goth. 'skapjan' (make, create), O.N.' skepja,' O.E.' scieppan,' O.S.' sceppian,' O.H.G.' scèpfen.' This lengthening is also known as gemination.

'r' is the only consonant not lengthened: no matter whether it is an old 'r' or one developed from 'z': Goth. 'harjis' (of the army), O.E. 'herges' ('g'='j'), O.H.G. 'hèries'; Goth. 'hazjan' (to praise), O.E. 'herian.'

(2) Before 'n' all consonants are lengthened. Almost all examples under this head are taken from the weak declension in which the 'n' in the gen. and dat. plu. fell together with the end of the stem. Thus beside the nom. sing. *'dropō' (drop), gen. sing. *'dropenes,' etc., were the gen. plu. *'droppnōm' and dat. plu. *'droppnumiz.' In analogy with *'droppnōm,' *'droppnumiz,' *'droppo,' *'droppenes' were formed, and in analogy with *'dropō,' *'dropenes,' *'dropnōm,' *'dropnumiz' were renewed. Hence we have O.H.G. 'tropfo,' beside O.E. 'drope,' O.S. 'dropo,' O.H.G. 'troffo.' Forms with long consonants are almost exclusively found in O.H.G. Still O.E. 'múcga' (heap) and 'múga' (O.N. 'múge') show that the change was general in W.Germ. Thus is also explained O.H.G. 'rappo,' whence M.H.G. raffe (raven) beside 'rabe'; O.H.G. 'chnappo' (boy) beside 'chnabo,' O.E.'cnafa.' In N.H.G.'rappe' (black horse), 'knappe' (esquire, shield-bearer) only exist with transferred meaning.

(3) The Germanic voiceless stops (tenues) 'p,' 't,' 'k' are lengthened before liquids. The 'r' and 'l' in

different cases had here become syllabic especially in the nom. sing. (but they did not fall together with Ind.-Germ. 'r̥' and 'l̥' as these had earlier passed into 'ur' and 'ul') and appear thus in Goth. and O.N. In W. Germ. vowels of a different character arose between them and the preceding consonant; before the vowel no lengthening could phonologically take place, but it came about through the analogy of kindred forms: Goth. 'snutrs' (prudent), O.N. 'snotr,' O.E. 'snottor' O.S., O.H.G. 'snottar' (through analogy with the gen. 'snottres,' etc.); Goth. 'akrs' (field), O.N. 'akr,' O.E. 'æcer,' O.H.G. 'ahhar,' beside O.S., O.M.G. 'akkar' (from 'akkres'), O. Upper G. 'acchar' (from 'acchares'); O.N. 'kitta' (tickle), M.L.G. 'ketteln,' O.H.G. 'kizilon,' M.H.G. and N.H.G. 'kitzeln' ('tz' can only come from 'tt'); O.N. 'eple' (apple), O.H.G. 'afful' as well as 'affoltra' (apple-tree), O.E. 'apuldr,' but O.E. 'æppel,' M.L.G. 'appel,' O.H.G. 'apful,' (from æpples, etc.).

IV. LAWS OF FINAL SOUNDS

As in other branches of Ind.-Germanic, final syllables have also in Germanic lost particular sounds. As a rule, it was the consonants that were first affected by these laws, then came the turn of the vowels, for they, being followed by consonants which were dropped according to the three laws given below, were shortened or discarded; but consonants after which vowels had been dropped were not affected.

1. Laws of Final Consonants

(1) In Germ. final '-m' becomes '-n': Lat. 'quum,' Goth. 'ƕan' (when).

(2) A final nasal in P.Germ. in an unaccented syllable or in a long accented syllable blends with the preceding vowel and forms with it a nasal vowel. The supposition that the nasal did not disappear without leaving a trace behind it is necessary, because when the vowels which were final in Ind.-Germ. were lost, those which were followed by a nasal (hence the nasal vowels) continued to exist. Thus we have in Prim. O.N., e.g. in the 1 sing. perf. 'un-nam' from *'-nam-a' (cf. Gk. λέλοιπα), but in acc. sing. 'staina' from *'stainam' (cf. Lat. 'equom'). The nasal remains after a short accented vowel: Goth. 'ƕan.' It blends, on the other hand, with a preceding long accented vowel and forms a nasal vowel: O.Ind. acc. fem. sing. 'tā́m' (this), Goth. 'þō.'

(3) Final dental stops disappear in P.Germ. in an unaccented syllable: O.Ind. 'bhárēt' (he may carry), Goth. 'baírai,' O.N., O.E., O.S., O.H.G. 'bere'; O.Ind. 'adharā́d' (from below), Goth. 'undarō.' That these dentals were dropped after the rise of the nasal vowels is proved by the fact that the 'n' is preserved before an original dental in Goth. 'bērun' (they carried), O.E. 'bǽron,' O.S., O.H.G. 'bārun,' with the same personal ending as Lat. 'ferēbant.' The dental remains after a short accented syllable: Lat. 'quod,' O.N. 'huat,' O.E. 'hwæt,' O.S. 'hwat,' O.H.G. 'hwaz.'

(4) A final '-z' (which arose through Verner's Law) in an unaccented syllable disappears in W.Germ., while

in Goth. it becomes '-s,' in Prim. O.N., like every '-z,' it becomes 'R,' and in O.N. 'r': Goth. 'dags' (day), Prim. O.N. 'DagaR' (proper name), O.N. 'dagr' (day), O.E. 'dæg,' O.S. 'dag,' O.H.G. 'tac': all from *'dazaz.' After a short accented vowel '-z' remains in W.Germ. also, and develops further like every 'z' into 'r': Goth. 'mis' (to me), O.N. 'mér,' O.H.G. 'mir.'

(5) In Nor. and W.Germ '-ns' disappears: Goth. acc. plu. 'gastins' (guest), O.N. 'geste,' O.S. 'gesti,' O.H.G. 'gėsti,' Goth. acc. plu. 'sununs' (sons), O.N. 'suno' or 'sunu,' O.E. 'sunu' or 'suna,' O.H.G. 'situ' (customs).

2. Laws of Final Vowels

The laws of final vowels only affect unaccented syllables.

(A) *Long Vowels*

The final "slur-" accented and nasalised long vowels remain long in Goth., but become short in Nor. and W.Germ.; the unnasalised "sharp-" accented long vowels become short in Goth. also. Here the different kinds of 'ō' come mainly into consideration.

To the Ind.-Germ. 'ō' point the Lith. pronominal genitives of 'o-' stems such as 'tō' (of the same) which have come from ablatives and correspond to O.Ind. 'tād' (from the same) Ind.-Germ. *'tōd.' Even the Goth. 'undarō' (below) has come from an ablative, as it corresponds to the O.Ind. abl. 'adharā́d,' and the ablative meaning is still very clearly shown in the Goth. adverbs in '-þrō' as 'aljaþrō' (from elsewhere) 'h aþrō' (whence), etc. From ablatives sprang also the Germanic adverbs in '-ō,' such as Goth. 'galeikō' (likewise),

O.N. 'glíka,' O.S. 'gilīco,' 'gilīhho,' as well as those in -iŋgō -uŋgō, like Goth. 'unwēniggō' (unhoped for), O.E. 'wéninga' (perhaps), O.S. 'wissungo' (certainly). Also the nom. sing. of the masc. 'n-' stems exhibit the same vowel-shades in W.Germ. as O.E. 'guma' (man), O.S. 'gumo,' O.H.G. 'gomo,' to which O.Lith. 'zmů̃' from Ind.-Germ. *'g̑hmō' corresponds, while Goth. has here substituted a 'guma' for *'gumo' in analogy with the acc. sing. in '-an.'

Also 'ō^{n}' (i.e. a nasalised ō) of the gen. plu. is represented as 'ō' in the different Germanic dialects; the gen. plu., according to the evidence of O.Ind. 'padām' (of the feet), Gk. *ποδῶν*, *θεῶν*, Lith. dėvų̃, ended already in Ind.-Germ. in all classes of stems in '-ōm': cf. Goth. 'tuggonō' (of the tongues), O.N. 'tungna,' O.E. 'tungena,' O.S. 'tungono,' O.H.G. 'zungōnō'; Goth. 'gibō' (of the gifts), O.N. 'giafa,' O.E. 'giefa,' O.S. 'geƀo'; O.N., O.E. 'fóta' (of the feet); O.S., O.H.G. 'nahto' (of the nights).

Vowels of another shade have their source in P.Germ. 'ō^{n}'; thus in the nom. sing. of the feminine 'n-' stems, such as Goth. 'tuggō' (tongue), O.N. 'tunga,' O.E. 'tunge,' O.S. 'tunga,' O.H.G. 'zunga' (cf. Gk. *αηδών*), but also in the nom. of the neuter n-stems as Goth. 'augō' (eye), O.N. 'auga,' O.E. 'ēage,' O.S. 'ōga,' O.H.G. 'ouga': that in this case feminines and neuters agree in Goth. as well as in O.N. and W.Germ. is proved by their agreement already in P.Germ. The same vowel-shades appear in O.N. and W.Germ. in the first pers. sing. ind. of the weak preterites where the source is P.Germ. 'ṓ^{n}' from 'ṓ^{m}': O.E. 'nerede' (I saved), O.S. 'nerida,' O.H.G. 'nėrita,' O.N. 'fáða' (I scratched), Prim. O.N. still 'faihiðo,' while Goth. 'nasida' for *'nasidō' has been transferred from the third person.

P.Germ. '$\acute{o}$' is shortened to '-a' in Goth., to '-u' in Nor. and W.Germ. In Prim. O.N. this '-u' is still preserved, but disappears in O.N. after it has produced umlaut; in W.Germ. it remains after a short and disappears after a long syllable. Here belongs the nom. sing. of the '$\bar{a}$-' stems in Ind.-Germ. '-$\acute{a}$': Gk. $\theta\epsilon\acute{\alpha}$, Lith. 'geró-ji' (the good one, fem.) [cf. p. 30]. In Goth. the Ind.-Germ. '$\acute{a}$' is still preserved as '$\bar{o}$' in the chief-accented 'sō' (this) = O.Ind. 'sá,' Doric $\tilde{\alpha}$, Attic $\tilde{\eta}$, but shortened in 'giba' (gift), Prim. O.N. 'gibu,' O.N. 'gjǫf,' O.E. 'giefu,' but 'fór' (journey), O.H.G. 'thisu' (this), but 'hwīl' (a while). Under the Ind.-Germ. '$\acute{o}$' the 1 sing. pres. ind. act. is here ranged: Gk. $\phi\acute{\epsilon}\rho\omega$, Lith. 'sukú' (I twist), in the compound 'sukú-s' (Lith. 'ú' from Ind.-Germ. '$\acute{o}$'), Goth. 'baira' (I carry), O.N. 'ber' (the '-u' is still preserved as '-o' in those cases in which through appending a word it had become medial, e.g. 'bero-mk' = I am carried, lit. I carry myself), Merc. 'beoru,' O.S., O.H.G. 'biru,' and, with a reinstated '-u' by analogy even after a long syllable, 'bindu' (I bind).

An example for another vowel is the Ind.-Germ. '-$\bar{\imath}$' in the nom. sing. of the '$\underset{\frown}{\imath}\bar{e}$-' stems: O.Ind. 'bṛhatī́' (the great one, f.), Goth. 'bandi' (fetter).

A slurred long vowel is also preserved in W.Germ. before '-s' and original '-z,' whereby '$\bar{o}$' is unrounded to '$\bar{a}$,' thus in the nom. plu. of the '$\bar{a}$-' stems: O.Ind. 'áśvās' (mares), Goth. 'gibōs' (gifts), O.H.G. 'gebā'; the short in O.S. 'geba,' O.E. 'giefa,' apparently also O.N. 'giafar,' are of later origin. But a sharp long vowel in this position is shortened contrary to the case in Goth.: Lat. 'velīs,' Goth. 'wileis' (thou wilt or wishest),

O.H.G. like, O.S. 'wili,' O.E. 'wile,' where the "sharp" accent is to be assumed, because a "slurred" accent only arose through contraction or sound-losses.

"Sharp-" accented vowels are everywhere shortened in Germanic before '-r': Gk. *πατήρ*, Goth. 'fadar,' O.N. 'faðer,' O.E. 'fæder,' O.S. 'fader,' O.H.G. 'fater.'

(B) *Diphthongs*

Final normal diphthongs retain the "slur-" accent in Goth.: thus Germ. '-aĩ' in pres. opt.: Lith. 'te-sukẽ' (he may twist) [-ẽ from Ind.-Germ. -oĩ], Goth. 'baírai' (he may carry). W.Germ. has here shortened final ē (for 'ai' in an unaccented syllable) but retained it long before 's': O.H.G. 'bere,' but 'berēs' (thou mayest carry) = Goth. 'baírais'; the 'e' in O.S. 'beres' and apparently also in O.N. 'berer' is of a later date. We find a corresponding relation in the case of 'aũ,' between Lith. 'sūnaũs' (of the son), Goth. 'sunaus,' O.H.G. 'fridō' (of peace = Goth. *'friþaus'), O.E. 'suna.'

'-ai' with a "sharp" accent is shortened to 'a' in Goth.: Gk. *φέρεται* (the accent on the antepenultima proves that the last syllable was "sharp-" accented), Goth. 'baírada.' In W.Germ. the shortening only takes place here after the contraction of 'ai' to 'ē': the only example is O.E. 'hátte' = Goth. 'haitada' (he is named).

The long diphthongs '-ēi,' '-ēu,' '-ōi,' '-ōu,' when final, shortened their first vowel in Goth. to 'a,' e.g. 'anstai' [from *'-ēi'] (to favour, dat.), 'sunau' [from *'-ēu'] (to the son), 'gibai' [from *'-ōi'] (to the gift), 'ahtau' [from *'-ōu'; cf. O.Ind. 'aṣṭáu'] (eight). In O.N. and W.Germ. '-ēi' becomes 'ei,' and further changes in O.N. into 'e' ['brúðe' (bride) = Goth.

'brūdai'], in W.Germ. into '-i' [O.S. 'ansti,' O.H.G. 'ensti']; '-ēu' changes into '-iu' [Prim. O.N. dat. 'Kunimudiu,' O.H.G. 'suniu']; '-ōi' into '-ē,' in O.E. into '-e' ('giefe'); '-ōu' into '-ō,' which is afterwards treated exactly like the other '-ō': O.N. 'átta,' O.E. 'eahta,' O.S., O.H.G. 'ahto.' The contraction to 'ō' is explained on this ground that, as the long diphthongs were longer than the normal, so were the "slurred" long diphthongs longer than the "sharp."

(C) *Short Vowels*

(1) In Goth. '-a' and '-i' are dropped when final or before -s (chiefly from '-z'), 'a^n' and '$-i^n$' are also dropped when final, while '-u' and '$-u^n$' remain everywhere: O.Ind. 'vĕda' (I know), Gk. '*Fοῖδα*,' Goth. 'wait'; Prim. O.N. 'stainaR' (stone) from *'stainaz,' Goth. 'stains,' Prim. O.N. 'staina' (acc.) from 'staina^n' [cf. Lat. 'equom' with 'equos'] Goth. 'stain'; Gk. *πατρί*, Goth. 'fadr'; Lat. 'hostis,' Goth. 'gasts' (guest), 'gast' (acc.) from *'gasti^n' from *'gastim' like 'sitim' from 'sitis'; Gk. *πολύ*, Goth. 'filu,' O.Ind. 'sūnúṣ' (son), Goth. 'sunus.' O.Ind. 'sūnúm' (acc.), Goth. 'súnu.'

(2) In Prim. O.N. '-a' has been lost, but '-aR' and '$-a^n$' are preserved; in O.N. -a also in '-aR' and '$-a^n$' is dropped: Gk. 1 sing. perf. *λέλοιπα*, Prim. O.N. 'unnam' (I undertook), O.N. 'nam'; Goth. 'dags' (day), stains (stone), Prim. O.N. 'dagaR,' 'stainaR,' O.N. 'dagr,' 'steinn'; Goth. 'stain' (acc.), Prim. O.N. 'staina,' O.N. 'stein.'

In Prim. O.N. '-i' in the third syllable is lost in 'witaðа-halaiban' (to the employer, master) from *'hlaibani.' There is no other example of '-i' in Prim. O.N. and it has disappeared in O.N.: Gk. *πατρί*:

O.N. 'feðr.' '-i' remains (before '-R') in Prim. O.N. 'Hlewa-gastiR,' 'Sali-gastiR,' but vanishes already in the Prim. O.N. period after a long and remains after a short syllable: 'barūtR' (breaks), 'sitiR' (sits); in O.N. '-i' is also dropped after a short syllable: 'sitr' as well as 'brytr'; likewise 'gest' (guest, acc.). Prim. O.N. has no example.

There are no examples in O.N. of Ind.-Germ. '-u.' After a short syllable 'u' before '-R' is still extant in Prim. O.N. 'sunuR' (son), 'karuR' (ready) for *'garuR,' but it disappears in this case also in O.N. after producing umlaut in the vowels subject to this change: 'sunr' ['sun'], 'gǫrr.' '-uⁿ' disappears in Prim. O.N. after a long syllable and remains after a short one: hence acc. 'Asmunt' beside 'sunu' on the Sölvesborg Stone (eighth century). In O.N. it disappears also after a short syllable after it has caused umlaut: 'sun' (son, acc.) 'mǫg' (son, acc.) for Prim. O.N. 'magu.'

(3) In W.Germ. neither 'a,' final or before an original '-z,' nor '-aⁿ' is retained anywhere: O.E. 'nóm' (I took), O.S., O.H.G. 'nam'; O.E. 'dæg,' O.S. 'dag,' O.H.G. 'tac' (day, nom. and acc.).

In W.Germ. 'i' and 'u,' final or before an original '-z,' as well as '-iⁿ' and '-uⁿ,' disappear after a long syllable, but remain after a short one: O.E. 'fét' (from *'fōti') (foot, dat.), cf. Gk. *ποδί*; 'hnyte' (nut) from *'hnuti.' O.E. 'giest,' O.S., O.H.G. 'gast' (guest, nom. and acc.); Prim. O.E., O.S., O.H.G. 'wini' (friend, nom. and acc.). Nom. acc. sing. neu. Goth. 'hardu' (hard), O.E. 'heard,' O.S. 'hard,' O.H.G. 'hart'; Goth. 'filu' (much), O.E. 'feolu,' O.S., O.H.G. 'filu'; Goth. nom. 'handus' (hand) acc. 'handu,' W.Germ. nom. acc. O.E. 'hond,' O.S. 'hand,' O.H.G. 'hant'; O.E., O.S., O.H.G. 'sunu' (son, nom. acc.).

3. Chronology

We are obliged on internal grounds to place the three first laws of final consonants before all laws governing final vowels; this is in complete harmony with the fact that the former cover all Germanic and must have operated during the time when Gothic and the other Germanic dialects were geographically connected. But most of the other laws, especially those to which vowels are subject, are common to Nor. and W.Germ. as distinct from Gothic, and must have operated at a time after the Goths had migrated from the Vistula-country, and when there existed a close intercourse between Nor. and W.Germ. Of the laws of final consonants, the dropping of -ns belongs to this period; of the laws governing final vowels the following: (1) the shortening of "slurred" long vowels, (2) the rounding of the "sharp-" accented '-ō' to '-u,' (3) the similar shortening of the long diphthongs, (4) the dropping of 'i' and 'u' especially after a long syllable.

As the Nor. and W.Germ. '-u,' which arose from '-ō,' obeyed the same law as the original '-u,' the dropping of the latter naturally took place after the shortening of the "sharp-" accented '-ō.'

Part III

ACCIDENCE

1. NOUNS

In Ind.-Germ. there were three numbers: singular, dual and plural; three genders: masculine, feminine and neuter; and eight cases: nominative, vocative, accusative, genitive, dative, ablative, locative and instrumental. Germanic has lost the dual number, but has preserved the three genders. Of the cases, the ablative which existed in Ind.-Germ. in the singular alone and only in the stems in '-o' disappeared from the Germ. declensions; the vocative which in Ind.-Germ. differed from the nominative only in the singular is preserved in Goth., while in O.N. it has adopted the form of the nominative, and in W.Germ. has phonologically coincided with this case. In the plural Germ. has also lost both dative and locative, as the instrumental took over their functions, and is in consequence called dative in Germ. The dative has also been displaced in many cases in the singular by the locative, which no longer occurs as an independent case, and sometimes by the instrumental which still exists as such in certain classes of stems. In Ind.-Germ. the neuter diverged from the masculine only in the nominative and accusative of the different numbers, which continued to be the case also in Germ.

Declensions differed in Ind.-Germ. according to what

stem-forming suffix was added to the root. There were also stems which only consisted of the root. The endings of one and the same case in the several classes of stems were only rarely different originally; still divergences arose, especially from the fact that stem-forming suffixes, which ended in a vowel, were contracted with case-endings whose initial sound was a vowel. A distinction is therefore made between vocalic and consonantal declensions; the former is called the strong declension in Germ. The most widely spread were the stems in '-e-' which was changed in most cases into '-o-,' hence the class is generally known as the 'o-' declension and contains masculine and neuter nouns. The extensive 'ā-' and i̯ē- classes contained only feminine nouns in Ind.-Germ. On the other hand, nouns of all the three genders belonged to the 'i-' and 'u-' classes. That was also the case in the consonantal declensions. Of the latter the n- class became the most extensive in Germ., and is known especially as the weak declension. Only small groups of the other consonantal classes have been preserved in Germ.: they are really root-stems, nouns of relationship in '-r,' participles in Ind.-Germ. '-nt,' used as nouns, and 'es-' stems.

In explaining the individual cases, the changes which have been treated under the laws of final syllables will not receive special notice.

A. The Vocalic or Strong Declension

(a) '*o-*' *Declension*

[This is also called the 'a-' declension]

(α) *Masculine*

Sing.

	Goth.	O.N.	O.E.	O.S.	A.H.G.
Nom.	arms (arm).	armr.	earm.	arm.	arm.
Voc.	arm.	armr.	earm.	arm.	arm.
Acc.	arm.	arm.	earm.	arm.	arm.
Gen.	armis.	arms.	earmes.	armes, -as.	armes.
Dat.	arma.	arme.	earme.	arme.	arme.
Instr.			earme.	armu.	armu.

Plu.

Nom.	armōs.	armar.	earmas.	armos.	arma.
Acc.	armans.	arma.	earmas.	armos.	arma.
Gen.	armē.	arma.	earma.	armo.	armo.
Dat.	armam.	ormom.	earmum.	armum.	armum.

Sing.

(1) In the nom. '-s' was added to '-o-' in Ind.-Germ.: ἵππο-ς, O.Lat. 'equo-s.' According to the position of the accent '-os' became '-as' or '-az' in Germ.; '-az,' however, became general, hence Prim. O.N. 'stainaR' (stone), O.E. 'earm,' etc.

(2) In the 'o-' stems in Ind.-Germ. the gen. had the pronominal ending '-sio': Gk. ἵπποιο from *ἵππο-σιο, O.Ind. 'áśva-sya' ('a' for Ind.-Germ. 'o'). The secondary form '-so' (cf. O.Bg. 'česo' = whose) is to be taken as the basis for Germ. Ind.-Germ. '-o-so' became '-asa,' '-as' in Germ., and is so found in Prim. O.N. 'Asugisalas,' Northumb. 'heofnas' (of heaven).

Old W.S. 'earmæs' (whence '-es'), O.S. 'armas.' '-e-so' stands in ablaut relation as '-is' in Goth. 'armis.' As Ind.-Germ. 'e,' when unaccented, becomes 'i' in Germ., '-es' in O.S., O.H.G. 'armes' cannot have directly come from Ind.-Germ. '-e-so': 'i' has rather returned to 'e' through the influence of the secondary form in '-as,' since 'a' and 'i̯' are fused into the intermediate 'e.' Similar processes operate in living dialects: thus in Soest the 'i-' umlaut of 'a,' lengthened under the accent, has become an 'i-' diphthong; but in every case in which there was a cognate form with 'a' or 'ā' alongside of it, an 'e-' diphthong has sprung up; hence, e.g. 'iəzl' (ass), Goth. 'asilus,' but 'featə' (casks), because 'fat' (cask) existed beside it.

(3) The dat. in Ind.-Germ. was formed in '-ai,' which with '-o-' was contracted into '-ōi': Gk. ποταμῷ, O.Lat. 'populōi.' From this arose the Nor. and W. Germ. '-ai,' which unaccented passed into '-ē,' and further into '-e' (in early O.E. still '-æ'). In Goth. the dat. has been replaced by the instr. which was formed in Ind.-Germ. by the mere lengthening of the final '-e-' of the stem: the Goth. 'þē' (thereby) still has an instrumental meaning. In unaccented syllables in Goth. "sharp-" accented '-ē' (like '-ō') becomes '-a.'

(4) In Ind.-Germ. an '-m' was added to '-o-' in the acc.: O.Ind. 'áśvam,' Gk. ἵππον, Lat. 'equom.' Hence Prim. O.N. 'staina' (stone, acc.), etc.

(5) In the voc. in Ind.-Germ. the pure stem in '-e' appeared: Gk. λύκε, Lat. 'vulpe,' Lith. 'vilkè.' Hence Goth. 'arm,' O.E. 'earm,' etc.

(6) The stem appeared in the instr. in Ind.-Germ., but with lengthening of the '-o' into a "sharp-" accented

'-ō,' from which arose Lith. 'ŭ' as in 'gerŭ-ju': hence O.S., O.H.G. 'hofu' (by the court) and, by restoring '-u' after a long syllable, also 'armu.' O.E. '-e' (early O.E. '-i') has its source in 'ī' from Ind.-Germ. '-eī' which was a contraction of '-e-' in the final stem and the locative ending '-i' (cf. Gk. οἴκει).

Plu.

(1) In the nom. in Ind.-Germ. the ending '-es' was contracted with the '-o' of the stem into '-ōs': O.Ind. 'vṛ́kās' (wolves) [Ind.-Germ. 'ō' becomes 'ā' in O.Ind.]. To this '-ōs,' '-es' could be again added as in O.Ind. 'vṛ́kāsas'; if the root was accented, Germ. showed '-ōziz,' to which alone dialectical O.Fris. '-ar,' e.g. in 'fiskar' (fishes), can be traced; but Goth. 'ōs' and O.N. '-ar' may also be explained in the same way, while O.E. '-as' and O.S. '-os' can have arisen in '-ōziz' from Ind.-Germ. '-ōs-es,' as it is possible that the ending which arose from the 'o-' stems with accented suffix was made general. In O.H.G. '-a' has come from the acc.

(2) In Ind.-Germ. the gen. ended in '-ōm,' contracted from the final '-o' of the stem and the ending '-om': Gk. ποταμῶν, O.Ind. 'vṛ́kām.' Hence O.N., O.E. '-a,' O.S., O.H.G. '-o.' Goth. '-ē' is to be traced back to Ind.-Germ. '-ēm,' which could be derived from '-e-om' by contraction.

(3) The instr. had the ending '-mis' in Ind.-Germ. (cf. Lith. 'rañkomis' = with hands), but not in 'o-' stems (cf. O.Ind. 'áśvāis' = with horses), Gk. ἵπποις: in Germ. '-mis' has been transferred to 'o-' stems also. This '-mis' appears as '-ms' in W.Germ. datives of names,

such as 'Aflims,' in Latin inscriptions of Germanic soldiers with the Romans: that an 'i' has been dropped in the third syllable here is proved by the O.E. 'twǽm' (by two) from *'twaimiz' (Goth. 'twaim') with 'i-' umlaut of 'á' from 'ai.' The '-s' in unaccented syllables had become '-z' (to be so taken in 'Aflims'), which necessarily disappeared later in W.Germ. In O.N. it is only after a chief-stressed syllable that '-R' from '-z' has not been assimilated to a preceding 'm,' e.g. in 'þrimr' (by three), 'tveimr' (by two); in other cases we find '-m' from '-mm' from '-mR.' The final '-o-' of a stem appears in Goth. as '-a-' in '-am,' but it has been preserved in Nor. and W.Germ. before the labial 'm' as a labial or round vowel in '-om' and '-um.'

(4) The acc. ended in '-ns' in Ind.-Germ.: Cret. λύκονς. Hence Goth. '-ans,' O.N., O.H.G. '-a.' O.E. '-as,' O.S. '-as,' '-os,' comes from the nom.

(β) *Neuter*

(1) The nom. acc. sing. were in Ind.-Germ. the same as acc. sing. masc.: O.Ind. 'yugám' (yoke), Gk. ζυγόν, Lat. 'iugum,' Goth. 'juk'; Prim. O.N. 'horna' (horn), O.N. 'horn'; O.S., O.H.G., Goth., O.N. 'barn' (child), O.E. 'bearn.'

(2) Nom. acc. plu.: O.Ind. 'yugā́,' Lat. 'iuga,' O.Bg. 'iga' (-a from -ā). In Goth. '-ā' is still retained as '-ō' under the chief accent in 'þō' (these). But, cf. Goth. 'barna (children), O.N. 'bǫrn,' O.E. 'bearn,' O.S., O.H.G. 'barn with O.E. 'grafu' (graves), O.S. 'grabu.'

(b) '*io-*' *Declension*

The 'io-' is only an offshoot of the 'o-' declension, and the following points are to be especially noted:

(1) As may be seen from O.Ind. and O.Bct. 'i' in Ind.-Germ. became 'i̯' before a vowel, when a short syllable preceded it. This continues to be the case in Goth., in so far as 'io-' stems with a short root-syllable have '-jis' in the gen. sing., while those with a long stem-syllable have '-eis' (from '-i-is'): e.g. 'harjis' (of the army), 'haírdeis' (of the shepherd).

(2) In the nom. sing. '-ios' of masculines with a long stem was contracted to '-īs' in Germ.: Goth. 'haírdeis' (shepherd). As the nom. here became like the gen. it also assumed the same form as the latter in the case of the masculines with short stems: 'harjis' (the army).

(c) '*ā-*' *Declension*

Sing.

	Goth.	O.N.	O.E.	O.S.	O.H.G.
Nom.	giba (gift).	giof.	giefu.	geƀa.	geba.
Acc.	giba.	giof.	giefe.	geƀa.	geba.
Gen.	gibōs.	giafar.	giefe.	geƀa.	gebā.
Dat.	gibai.	giof.	giefe.	geƀu.	gebu.

Plu.

Nom.-acc.	gibōs.	giafar.	giefa.	geƀa.	gebā.
Gen.	gibō.	giafa.	giefa, -ena.	geƀo, -ono.	gebōno.
Dat.	gibōm.	giofom.	giefum.	geƀum.	gebōm.

Sing.

(1) In Ind.-Germ. the nom. had no ending in this declension: O.Ind. 'áśvā' (mare), Gk. θεά. This 'ā' is

kept as '-ō' in Goth. in the chief-accented 'sō' (this, f.) and in those cases in which it has appeared medially, as in 'ni ainōhun' (no one, f.) [related to 'aina,' "one," f. as 'ni ainshun' "no one," m. to 'ains' "one," m.]. From '-ō,' are to be explained Goth. 'giba,' Prim. O.N. 'gibu,' O.N. 'gjǫf' (with 'u-umlaut'), O.E. 'giefu.' In addition to the O.E. '-u' of the nouns with short stems there is the form without an ending of nouns with long stems such as 'fór' (journey). O.S., O.H.G. '-a' has been taken from the acc.

(2) The ending of the gen. was here, as in all the following classes, '-es' from '-os,' by ablaut, which with '-ā' was contracted to '-ās': O.Ind. 'áśvās,' Gk. θεᾶς, Lith. 'mergõs' (of a maiden); 'ās' became, in Germ. through accenting the root, '-ōz,' whence Goth. '-ōs,' O.N. '-ar,' O.S. '-a,' O.H.G. '-ā'; O.E. '-e' seems to have been taken over from the dat.

(3) In the dat. Ind.-Germ. '-ai' was contracted with '-ā' into '-āi': O.Ind. 'tasyāi' (to this, f.), Gk. θεᾶ: hence Goth. '-ai,' O.E. '-e.' The '-u' of O.N. *'giafu,' whence 'gjǫf,' O.S. 'geƀu,' O.H.G. 'gebu,' is to be traced back to '-ṓ' from Ind.-Germ. '-ā́' of the instr. (cf. '-u' from '-ṓ' in the instr. of the 'o-' stems); the '-u' has been in O.S., O.H.G. also restored to the words with long stems: e.g. to 'êru' (to the honour).

(4) The acc. added '-m' to '-ā-' in Ind.-Germ.: O.Ind. 'áśvām,' Gk. θεάν. From 'ām' arose Germ. '-ōm,' whence '-ōⁿ,' whence O.E. '-e,' O.S., O.H.G. '-a,' also O.N. '-a' which, however, only exists in the adj., e.g. 'spaka' from 'spakr' (prudent). In the case of the noun the acc. took the form of the nom. in Goth.-Nor., in this the adj. followed suit.

Plu.

(1) In the Ind.-Germ. nom. '-ā-es' was contracted to '-ās,' O.Ind. 'áśvās.' The Germ. forms are phonologically developed: Prim. O.N. 'runoR' for O.N. 'rúnaR' (runes).

(2) In the gen. in Ind.-Germ. the '-ōm' of the 'o-' stems was transferred to the 'ā-' class as it was to all classes: Lith. 'rañkū' (of hands), O.Bg. 'rąkŭ' as Lith. 'vilkŭ' (of wolves), O.Bg. 'vlŭkŭ.' Besides that, there existed here '-ā-nōm': O.Ind. 'áśvānām.' Both formations are preserved in Germ.: thus in Prim. O.N. 'runo,' 'runono.'

(3) The Ind.-Germ. instr. ended in '-ā-mis': Lith. 'rañko-mis.' Whence the Germ. dat.

(4) The Ind.-Germ. acc., like the nom., ended in '-ās,' which probably in this case, however, came from '-ā-ns': O.Ind. 'áśvās,' Lith. 'aszwōs,' Goth. 'gibōs,' etc.

(d) '*i̯ē-*' *Declension*

The '*i̯*ē-' stems have been frequently replaced in the Ind.-Germ. languages by '*i̯*ā-' stems, which are inflected like 'ā-' stems (cf. Lat. 'māteria' with 'māteriēs'). Only the nom. and acc. sing. in Germ. show forms deviating from the '*i̯*ā-' stems.

(1) In the nom. sing. '-ī' could stand as a vanishing grade of '-*i̯*ē' without a case-ending: O.Ind. 'bṛhatī' (the great one, f.). Lith. 'vežantì' ['-i' from '-ī'] (the travelling one, f.). Likewise Goth. 'bandi' (band), gen. 'bandjōs,' O.S. 'rethi' (speech). In O.E. 'bend' (band), '-i' has phonologically disappeared after a long syllable, in O.H.G. 'kuningin' (queen) after many syllables; in

O.N. 'heiðr' (heath) the case-ending 'r' has also been added. But '-i̯ē' could also stand in Ind.-Germ.: Lith. 'žẽmē' (earth) ['i̯' disappears in Lith. before a front vowel); Lat. with a nom. ending 'materiē-s.' Likewise Goth. 'sunja' (truth) from 'sn̥tié' (cf. O.Ind. nom. sing. fem. 'satī́' (being).

(2) In the acc. sing. '-e' arose from '-i̯ē-m' (cf. Lat. 'māteriem') in O.N. 'heiðe,' '-a' from '-i̯ā-m' (cf. Lat. 'māteriam') in O.S. 'rethia,' O.H.G. 'kuninginna'; O.E. 'bende' admits of both explanations. Goth. 'bandja' is modelled on 'giba.'

(e) '*i*-' *Declension*

(*a*) *Masculine*

Sing.

	Goth.	O.N.	O.E.	O.S.	O.H.G.
Nom.	gasts (guest).	gestr.	giest.	gast.	gast.
Acc.	gast.	gest.	giest.	gast.	gast.
Gen.	gastis.	gests.	giestes.	gastes.	gastes.
Dat.	gasta.	gest.	gieste.	gaste.	gaste.
Instr.			gieste.	gastiu.	gastiu.

Plu.

Nom.	gasteis	gester.	giestas.	gesti.	gėsti.
Acc.	gastins.	geste.	giestas.	gesti.	gėsti.
Gen.	gastē.	gesta.	giesta.	gestio.	gėsteo.
Dat.	gastim.	gestom.	giestum.	gestion.	gėstim.

Sing.

(1) In the Ind.-Germ. nom. '-s' was added to '-ei̯̊-', which was originally the ending of the stem, but became '-i-' because it was unaccented: O.Ind. 'gátiṣ' (way), Gk. *βάσις*, Prim. O.N. 'SaligastiR,' etc. '-i' disappeared in

W.Germ. only after a long syllable: it was retained after a short syllable: Early O.E., O.S., O.H.G. 'wini' (friend), O.E. 'wine.'

(2) In the gen. the form of the 'o-' declension was taken over in P.Germ.

(3) Probably the O.N. dat. 'gest' from *'gastī' was originally an instr. in Ind.-Germ. '-ī,' corresponding to the '-ō' of the 'o-' stems. The same formation is also found in O.S. in the case of words with short stems, e.g. in 'hugi' (to the mind); for those with long stems we should expect in O.S. a form without an ending. As these, however, only occur otherwise in the nom. and acc. sing., a dat. in '-e' was here formed on the model of the gen. in '-es.' This formation of the dat. from the gen. is general in Goth., O.E. and O.H.G.

(4) '-i-m' in the acc. had arisen already in Ind.-Germ. (cf. nom.): O.Ind. 'gátim,' Gk. *βάσιν*, Lat. 'sitim.' In the Germ. dialects the acc. came to coincide phonologically with the nom.: hence in early O.E., O.S., O.H.G. 'wini,' O.E. 'wine.'

(5) In the instr. in O.S. and O.H.G. '-u,' regarded as an instr. ending, was taken from the '-o' stems and added to the '-i' of the stem.

Plu.

(1) In Ind.-Germ. the nom. ended in '-ei̯-es': O.Ind. 'agnáyas' (the fires), 'tráyas' (three), Cret. *τρέες* from *'treie̯s.' From this came Germ. '-ijiz,' later '-īz.' Hence Goth. '-eis,' O.N. '-er,' O.S. '-i'; '-e' only seldom in O.E., as in 'wine' (friends); generally because of the other plural cases the ending of the 'o-' stems ('-a̯s') has been adopted. O.H.G. '-i' comes from the acc.

(2) The gen. ended in Ind.-Germ. in '-iŏm': τριῶν, Lat. 'turrium.' Hence O.S. '-io,' O.H.G. '-eo.' In the Northern Germ. dialects (Nor., Goth., O.E.) the gen. plu., following the example of the gen. sing., adopted the form of the 'o-' declension; only in O.E. are found isolated 'winiga' (for '-ia') 'Deniga.'

(3) The instr. ended in '-i-mis' in Ind.-Germ.: Lith. 'naktimìs' (by means of nights). Hence in the dat. in Goth. O.H.G. '-im.' O.N. '-om,' O.E. '-um' have been taken over from the 'o-' declension because of the gen. plu. in '-a'; O.S. '-ion' is from the 'i̯o-' declension because of the gen. plu. in '-io.'

(4) The acc. ended in '-i-ns' in Ind.-Germ.: Cret. πόλινς. The Germ. forms are phonologically developed; in O.E., however, '-as' has generally taken the place of '-e' as in the nom. plu.

(β) *Feminine*

The feminine 'i-' stems have in the sing. in O.N. gone over to other classes, esp. to the 'ā-' class (e.g. 'tíð' "time," 'tíðar,' 'tíð,' 'tíð') and have on the model of these levelled the acc. and nom. plu., e.g. 'tíðer.' In the other dialects they have not, on account of their gender, adopted the innovations which arose from the 'o-' stems: only in the Goth. gen. plu., '-ē' is borrowed from the masc. 'i-' stems. They thus form in O.S., O.H.G. no instr. sing., and preserve in O.E. the nom. and acc. plu. in '-e' and have different forms for the gen. and dat. sing.

(1) In the gen. sing. '-oi̯-es' was contracted to '-ōis': Lith. 'naktẽs' (of the night), Goth. 'anstais' (of favour). In W.Germ. the dat. has made its way into the gen.: O.E. 'éste,' O.S. 'ansti,' O.H.G. 'ėnsti.'

(2) The dat. sing. was replaced by the loc. which had been formed in Ind.-Germ. by lengthening the final '-ei' of the stem to '-ēi̯': Gk. πολῃ, Oscan 'Fuutrei' (genetrici), Goth. 'anstai,' O.E. 'éste,' O.S. 'ansti,' O.H.G. 'ėnsti.'

(γ) *Neuter*

Only remains are found in W.Germ.

(1) In the nom. acc. sing. there was a vanishing grade '-i-' without ending in Ind.-Germ.: O.Ind. 'śuci' (clean), Gk. ἴδρι (skilled), Lat. 'leve' from *'levi,' 'mare' from *'mari' = O.H.G. 'mari' (sea), O.S. 'halsmeni' (neck-ornaments), O.E. 'spere' from *'speri' (spear).

(2) In the nom. acc. plu. assimilation with the 'o-' declension instead of the old formation (still in O.Ind. 'trī' = three) took place dialectically in Ind.-Germ.: Gk. τρία, Lat. 'tria,' Goth. 'þrija,' O.E. 'ðréo,' O.S. 'thriu,' O.H.G. 'driu.' 'Speru' is modelled in O.E. on the neuters 'o-' stems ('grafa,' 'grafum': 'spera,' 'sperum' = 'grafu': 'speru').

(f) 'u-' *Declension*

(α) *Masculine and Feminine*

	Goth.	O.N.	O.E.	O.S.	O.H.G.
		Sing.			
Nom.	sunus (son).	vǫttr (glove).	sunu.	sunu.	sunu.
Voc.	sunu, -au.	vǫttr.	sunu.	sunu.	sunu.
Acc.	sunu.	vǫtt.	sunu.	sunu.	sunu.
Gen.	sunaus.	vattar.	suna.	sunies.	sunes.
Dat.	sunau.	vette.	suna.	suno.	suniu.
Instr.					suniu.
		Plu.			
Nom.	sunjus.	vetter.	suna, -u.	suni.	suni.
Acc.	sununs.	vǫtto.	suna, -u.	suni.	suni.
Gen.	suniwē.	vatta.	suna.	sunio.	sunǫo.
Dat.	sunum.	vǫttom.	sunum.	sunion.	sunim.

Sing.

(1) The nom. of this true '$e\underset{\frown}{u}$-' class showed in Ind.-Germ. a vanishing grade '-u-+s': O.Ind. 'sūnúš' (son), Lith. 'sūnùs,' Goth. 'sunus,' O.Swed. 'sunuR.' O.N. 'v$\underset{\frown}{o}$ttr' from *'vattuR,' still as the loan-word 'vantus' in Finnish. '-u' has disappeared in W.Germ. after a long syllable: Goth. 'handus' (hand), O.E. 'hond,' O.S. 'hand,' O.H.G. 'hant.'

(2) In the gen. '$o\underset{\frown}{u}$-es' was contracted to '-ōus' already in Ind.-Germ.: O.Ind. 'sūnṓṣ,' Lith. 'sūnaũs,' Goth. 'sunaus,' O.N. '-ar,' O.E. '-a.' In O.H.G. the phonological form in '-ō' is only rare ('fridoo' = of peace); generally '-es' is found in analogy with 'i-' stems, because in the nom. plu. '-i' of 'suni' had coincided with that of 'gėsti.' O.S. '-ies' is in analogy with the adjectival 'u-' stems which in most cases in Germ. had passed over to the '$i\underset{\frown}{o}$-' declension.

(3) The Germ. dat. is a loc. in Ind.-Germ. with a lengthened grade '-ē$\underset{\frown}{u}$' without an ending: O.Ind. 'sūnáu.' Hence Goth. '-au,' Prim. O.N. '-iu,' ('magiu' = to the son), whence in O.N. '-i,' '-e' produces umlaut. In the oldest stages of O.H.G. 'suniu' still exists, but generally 'sune,' modelled on the 'i-' declension through the nom. plu. 'suni,' has replaced it. In O.E. '-a' has encroached from the gen. The O.S. '-o' has apparently its source in '-au' and this in '-ōu,' which may have been in ablaut relation to Ind.-Germ. '-ēu'; O.S. 'sunie' is formed in analogy with 'sunies,' and 'suni' with the 'i-' declension.

(4) The Ind.-Germ. acc. ended in '-u-m': O.Ind. 'sūnúm,' Goth. 'sunu,' etc. In W.Germ. '-u^n' also dis-

appeared after a long syllable: O.E. 'hond,' O.S. 'hand,' O.H.G. 'hant.'

(5) The Ind.-Germ. voc. showed an 'o-' grade without an ending as in O.Ind. 'sūnṓ, Lith. 'sūnaũ' or a vanishing grade as in Gk. πῆχυ: both forms, 'sunau' and 'sunu' are in Goth., only the latter in W.Germ.

(6) The O.H.G. instr. 'suniu' stands to 'suni' as 'gastiu' to 'gasti' (gėsti).

Plu.

(1) The Ind.-Germ. nom. ended in '-éu̯-es': O.Ind. 'sūnávas,' Gk. πήχεες, from *πήχεϝες. Whence Germ. '-iu̯iz,' whose second 'i' was dropped already in P.Germ. because it stood in a third syllable; through this the 'u̯' became vocalic before 'z.' In Goth. 'i' then became a consonant before 'u': 'sunjus.' In Nor. and W.Germ. 'u' disappeared from *'suniuz' in a third syllable: hence Prim. O.N. '-ir' ('sunir'), O.N. '-er,' O.S., O.H.G. '-i.' O.E. '-a' is presumably traceable to '-auz,' which stands in ablaut relation to Ind.-Germ. '-ou̯-es'; O.E. '-u' comes from the acc.

(2) In the gen. the 'e-' grade stood in some of the Ind.-Germ. speeches, thus '-éu̯-õm': Gk. πήχεων from *πήχεϝων. For Goth. 'suniwō' was substituted 'suniwē' formed in analogy with 'o-' stems; in Nor. and W.Germ. the gen. on account of the nom. plu. everywhere adopted the form of the 'i-' stems.

(3) The Goth. and O.E. 'sunum,' O.N. 'vǫttom' correspond to the Lith. 'sunumìs.' In O.H.G. 'sunim' is formed in analogy with the 'i-' stems because of the nom. plu.; hence also O.S. 'sunion' from *'suniun' through the influence of the adjectival u- stems (cf. gen. sing.).

(4) The Ind.-Germ. acc. ended in '-u-ns': Cret. *νίύνς*, Goth. '-uns,' O.N. '-o,' O.E. '-u': in O.H.G. sporadic 'situ' (customs). O.E. '-a,' O.S., O.H.G. '-i' from nom.

(B) Consonantal Declension

(a) *Root-stems*

(α) *Feminine*

Sing.

	Goth.	O.N.	O.E.	O.S.	O.H.G.
Nom.	baúrgs (city).	mǫrk (mark, a weight).	burg.	burg.	burg.
Acc.	baúrg.	mǫrk.	burg.	burg.	burg.
Gen.	baúrgs.	merkr.	byrg.	burges.	burg.
Dat.	baúrg.	mǫrk.	byrg.	burg.	burg.
Plu.					
Nom.	baúrgs.	merkr.	byrg.	burgi.	burg.
Acc.	baúrgs.	merkr.	byrg.	burgi.	burg.
Gen.	baúrgē.	marka.	burga.	burgo.	burgo.
Dat.	baúrgim.	mǫrkom.	burgum.	burgun.	burgum.

Sing.

(1) The nom. was formed in Ind.-Germ. in '-s': Gk. *νύξ*, Lat. 'nox.' In Germ. the nom. '-s' was always supplanted by '-z,' which had arisen in disyllabic, root-accented nominatives. As the nom. in O.E. had become like the acc. in the case of long root-syllables, '-u' of the acc. of short root-syllables was adopted by the nom., e.g. 'hnutu' (nut). In O.N. 'mǫrk' from the acc. because of the levelling of both cases in the 'ā-' class.

(2) The Ind.-Germ. ending of the gen. was '-es,' in ablaut relation to '-ós': Gk. *νυκτός* (Lat. 'noctis' from '-es'). Even before the operation of Verner's Law, the

accent was moved back in Germ.: hence '-es' became '-iz,' and thus Goth. 'baúrgs,' O.N. 'merkr,' O.E. 'byrg,' O.H.G. 'burg.' O.S. 'burges' rests on assimilation with masc. root-stems. In O.E. in the case of short root-syllables assimilation with the 'ā-' class took place: 'hnute' (because of nom. 'hnutu' like 'giefu').

(3) The Germ. dat. is an Ind.-Germ. loc. in '-i': O.Ind. 'vāćí,' Gk. *νυκτί*: hence Goth. 'baúrg,' O.E. 'byrg,' O.S., O.H.G. 'burg'; in W.Germ. '-i' after a short syllable is preserved as O.E. '-e': 'hnyte.' O.N. 'm̥rk,' is modelled on the 'ā-' class through nom. acc.

(4) The Ind.-Germ. acc. had '-m̥': Gk. *νύκτα*, Lat. 'noctem.' Hence Germ. '-um,' later '-u^{n},' which is kept as '-u' in W.Germ. after short syllables, e.g. in O.E. 'hnutu,' but has disappeared after long syllables. O.N. 'm̥rk' from *'marku.' Goth. 'baúrg' stands to 'anst' as nom. 'baurgs' to 'ansts.'

Plu.

(1) The nom. ended in '-es' in Ind.-Germ.: *νύκτες*. '-es' became '-iz' in Germ.: Goth. 'baúrgs,' O.N. 'merkr,' O.E. 'byrg,' O.H.G. 'burg'; in W.Germ. '-i' is retained after a short syllable as O.E. '-e': 'hnyte.' In O.S. 'burgi' is to 'burg' as 'ansti' to 'anst'; but 'naht' (nights) is phonological.

(2) The gen. ended in '-ōm' in Ind.-Germ.: *νυκτῶν*. Hence the case in Germ. is as in the 'o-' stems, from which '-ē' in Goth. is taken.

(3) In Ind.-Germ. instr. '-mis' after consonants became '-əmis'; hence the dat. in Germ. has '-um'; Goth. 'baúrgim' is modelled on 'anstim' as 'baúrgē' on 'anstē.'

(4) The acc. ended in '-n̥s' in Ind.-Germ.: Gk. *νύκτας*. In P.Germ. it was levelled with the nom. on the model of the 'ā-' stems.

(β) *Masculine*

As the number of masculines was very small, formations by analogy with other classes have taken place more frequently than in the case of the feminines from which the masculines never diverged in Ind.-Germ. Thus Goth. 'reiks' (ruler) has still 'reik' as dat. but already 'reikis' as gen. just as the O.E. 'fót' (foot) has dat. 'fét,' gen. 'fótes.' In O.N. the transition to other declensions, especially to the 'u-' class, has taken place everywhere, thus 'fótr,' 'fót,' 'fótar,' 'føte'; the consonantal declension is here only perceptible in the nom. acc. plu. 'føtr.'

(γ) *Neuter*

Remains of this declension are only found in O.E.

(1) The nom. acc. sing. had no ending in Ind.-Germ.: O.Ind. 'hr̥d' (heart), Lat. 'cor.' Just as the final 'd' was dropped in 'cor' (gen. 'cordis') so was þ in O.E. 'ealu' (beer), gen. dat. 'ealoð': 'd' has been restored in 'scrúd' (garment) in analogy with other cases.

(2) The nom. acc. plu. had 'ə' in Ind.-Germ.: O.Ind. 'bháranti,' Gk. *φέροντα*. Hence O.E. 'scrúd' (cf. dat. sing. 'scrýd' from *'scrūdi').

(b) '*n*-' *Stems* (*Weak Declension*)

(α) *Masculine*

Sing.

	Goth.	O.N.	O.E.	O.S.	O.H.G.
Nom.	hana (cock).	hane.	hona.	hano.	hano.
Acc.	hanan.	hana.	honan.	hanon.	hanon, -un.
Gen.	hanins.	hana.	honan.	hanen.	hanen.
Dat.	hanin.	hana.	honan.	(hanon).	(hanin).

Plu.

	Goth.	O.N.	O.E.	O.S.	O.H.G.
Nom.	hanans.	hanar.	honan.	hanon.	hanōn, -un.
Acc.	hanans.	hana.	honan.	hanon.	hanon, -un.
Gen.	hananē.	hana.	honena.	hanono.	hanōno.
Dat.	hanam.	hǫnǫm.	honum.	hanon.	hanōm.

In the nom. sing. the stem had no ending in Ind.-Germ., but it had a lengthened grade; along with '-ōn' (Gk. *ἄκμων*) and '-ēn' (Gk. *ποιμήν*) there was also '-ō' (Lith. 'akmů'; 'ů' from Ind.-Germ. 'ō'). '-ō' is the basis for W.Germ. and '-ēn' for O.N. For Prim. O.N. 'Wiwila,' 'Hǫrirnǫ,' etc., '-aⁿ' slightly raised towards 'e' is to be assumed. In Goth. 'hanan' has been made the acc. of 'hana' in analogy with the fem. 'n-' stems in which the nom. is 'tuggō' and acc. 'tuggōn': the remodelling proceeded from the weak adj. in which 'blindōn' is acc. fem. to 'blindan.'

The other cases have in this as in all the following classes the same endings as the root-stems; the '-i' of the dat. sing. must have disappeared early in a third syllable without leaving a trace behind it.

Of the forms of the stem-building suffix, Ind.-Germ. had '-en' (Germ. '-in') in the gen. and dat. sing., '-on' (Germ. '-an') or '-n̥' (Germ. '-un') in the acc. sing. and nom. plu.: this is still the case in two languages, Goth. and O.H.G., which were never neighbours. In O.N. and its neighbour O.E. '-an' has penetrated into the gen. and dat. also, then in O.N. '-n' after a vowel not bearing the chief stress (as in 'bera' carry = Goth. 'baíran') was dropped. In O.H.G. '-in' and '-un' are O. Upper G., '-en' and '-on' O.M.G.; the character of the vowels in the latter agrees with the neighbouring

O.S. In O.M.G. and O.S., as in their southern neighbour O. Upper G., there must once have been, along with '-in' in the gen. and dat. sing. and '-un' in the acc. sing. and nom. plu., an ending '-an' in all these cases as in their once northern neighbour O.E.; a mixture of 'a' and 'i' in the gen. and dat. sing. must have produced the intermediate 'e' and a mixture of 'a' and 'u' in the acc. sing. and nom. plu. the intermediate 'o' (cf. p. 83). But the '-on' in O.S. like the '-an' in O.E. was able to penetrate also into the gen. and dat. sing.

The gen. plu. had a vanishing grade in Ind.-Germ.: O.Ind. 'rā́jnām' (of the kings). Likewise in Germ. in a few words: Goth. 'aúhsnē' (of the oxen), O.N. 'yxna,' 'øxna' (for the phonological *'oxna'), O.E. 'oxna.' 'a' in the Goth. '-anē' has come from the nom. plu.; in W.Germ. the ending of the fem. 'n-' stems has become predominant.

The instr. plu. ended in Ind.-Germ. is '-n̥-mis'; this developed in Germ. into '-un-mis,' '-ummiz,' '-umm,' '-um': whence O.N. '-om,' O.E. 'um.' O.H.G. '-ōm' is formed in analogy with the gen. '-ōno' and O.S. '-on' with '-ono.' The 'a' of Goth. '-am' comes from the nom. plu.

The acc. plu. also took in this class in Germ. the form of the nom. plu. In O.N. *'hanan' necessarily developed into 'hana,' which looked like an acc. plu. of the o- declension ('arma'), and therefore produced a nom. plu. 'hanar' and a gen. plu. 'hana,' especially as 'hǫnom' and 'ǫrmom' were also similar.

(β) *Feminine*

Sing.

	Goth.	O.N.	O.E.	O.S.	O.H.G.
Nom.	tuggō (tongue).	tunga.	tunge.	tunga.	zunga.
Acc.	tuggōn.	tungo.	tungan.	tungun.	zungūn.
Gen.	tuggōns.	tungo.	tungan.	tungun.	zungūn.
Dat.	tuggōn.	tungo.	tungan.	tungun.	zungūn.

Plu.

Nom.	tuggons.	tungor.	tungan.	tungun.	zungūn.
Acc.	tuggons.	tungor.	tungan.	tungun.	zungūn.
Gen.	tuggōno.	tungna.	tungena.	tungono.	zungōno.
Dat.	tuggōm.	tungom.	tungum.	tungoŋ.	zungōm.

The nom. sing. goes back to Ind.-Germ. '-ōn' (Gk. *ἀηδών*). The O.N. '-o' in the acc. gen. dat. sing. is derived from '-on' (as '-a' of the masc. is from '-an'); in the nom. plu. the '-r' which had in the other classes become general in this case was added to this '-o,' then the acc. plu. took the form of the nom. plu. as in the case of all feminines.

In Goth. '-ō-,' as in Lat. 'rātiō,' was inserted by analogy in all the cases, and in O.H.G. (and probably also in O.S. in which dialect marks of quantity have nowhere been handed down) through the influence of the 'ā-' declension in the gen. and dat. plu. at least.

In O.N. the vanishing grade '-un,' whence '-on, -o' (like '-an, -a' in the case of the masc.) made its way from the acc. to the gen. and dat. sing., like O.E. '-an.' In O.H.G. and O.S. '-un' spread in a similar manner, but in O.H.G. (perhaps in O.S. also) it got mixed with '-ōn,' which was likewise extending its province, and

produced '-ūn': the 'ū' of "-ūn" combined the character of 'u' with the long quantity of 'ō.'

A subdivision of the feminines in '-ōn' are those in '-īn,' which is really a vanishing grade to '-i̯ōn,' '-i̯ēn': in these the 'ī' (as in Gk. δελφίς, δελφῖνος) has been introduced into all the cases. They are mainly abstract nouns formed from adjectives, as Goth. 'hauhei' (height) from 'hauhs' (high). The Goth. inflexion is similar to that of 'tuggō': 'hauhei,' 'hauhein,' 'hauheins,' etc. The levelling of the several cases was increased outside Goth. through the disappearance of the final '-n' in (i) O.N. after a vowel which did not bear the chief accent, and (ii) W.Germ. after '-ī' which did not bear the chief accent. Hence in O.H.G. throughout the sing. and in the nom. and acc. plu. 'hōhī' (gen. plu. 'hōhīno,' dat. 'hōhīm'). As these words form no plu. in O.N., they appear with their '-e,' from '-ī' (e.g. 'elle'=age), quite indeclinable. In O.E. this '-e' of the acc. gen. dat. sing. brought about the formation of the nom. sing. in '-u,' in analogy with the 'ā-' class (e.g. 'ieldu'=age); as '-u' and '-e' then stood side by side in the nom. this led to '-u' being used in the other cases also. But in the nom. only the 'u-' forms persisted: the origin of the class, however, is still revealed by the 'i-' umlaut.

(γ) *Neuter*

(1) The basis of the Germ. nom. acc. sing. as of the nom. fem. is the Ind.-Germ. '-o̯n': Goth. 'augō' (eye), O.N. 'auga,' O.E. 'éage,' O.S. 'ōga,' O.H.G. 'ouga.'

(2) The nom. acc. plu. in Ind.-Germ. added '-ā' either to '-o̯n' (hence Goth. 'augōna,' O.E. 'éagan') or to '-ən' (hence O.N. 'augo,' O.S. 'ōgon' '-un,' O.H.G. 'ougun');

'-u' from '-ō' from '-ā' disappeared here early in Nor. and W.Germ. in a third syllable, then in O.N. final '-n' also.

(c) *Nouns of Relationship: Stems in '-r'*

The nouns of relationship in '-r' embrace masculines as Goth. 'fadar' (father), O.N. 'faðer,' O.E. 'fæder,' O.S. 'fader,' O.H.G. 'fater,' and feminines as Goth. 'swistar' (sister), O.N. 'syster,' O.E. 'sweoster,' O.S., O.H.G. 'swester.'

The nom. sing. in Ind.-Germ. had lengthening of the vowel before '-r' instead of the case-ending: Gk. *πατήρ φρά-τωρ*. In Germ. the vowel has again become short.

The contrast between strong cases, in which the Ind.-Germ. root or stem-forming suffix was accented, and weak cases in which the case-ending was accented is still seen in the Goth. acc. sing. 'fadar' from Ind.-Germ. *'pətér-m̥,' Gk. *πατέρα* and the gen. sing. 'fadrs,' Gk. *πατρός*, dat. sing. 'fadr,' Gk. *πατρί*. The acc. plu. also could be a weak case in Ind.-Germ.: thus Lat. 'patrēs' has developed by way of *'patrens' from *'patr̥-ns' to which Goth. 'fadruns' corresponds. To this 'fadrjus' was formed as nom. plu. on the analogy of 'sunjus' to 'sununs.' In Nor. the weak forms have also spread to the nom. plu.: thus in O.N. 'feðr' from *'faðr-iz' as opposed to O.Ind. 'pitáras,' Gk. *πατέρες* and Prim. O.N. 'dohtriR' (daughters) like Homeric *θύγατρες* contrasted with Attic. *θυγατέρες*. On the other hand, '-er-' has not only been preserved in the nom. plu. (whose form has been taken over by the acc. plu.) in most nouns of relationship in W.Germ., but it has also been reinstated in the gen. and dat. sing., so that in O.H.G., e.g. 'muoter' appears indeclinable up to the gen.-plu. 'muotero' and dat. plu. 'muoterum.'

(d) *Participial stems in Ind.-Germ. '-nt'*

Of the present participles in Ind.-Germ. '-nt' (cf. Lat. 'amant-is' Gk. λύοντ-ος), Germ. '-nd,' a few like Goth. 'frijonds' (friend, lit. the loving one), O.E. 'fréond,' O.S. 'friund,' O.H.G. 'friunt,' have become masc. nouns, and have, in consequence, not shared in the transition when these participles went over to other classes; but in O.N., in which the participles joined the 'n-' declension, at least the sing. of participial nouns shared in the transition, cf. e.g. Goth. 'gibands' (giver) with O.N. 'gefande,' gen. 'gefanda.' Further, these nouns have in the other languages assumed endings of the 'o-' declension in isolated cases: thus already in Goth. and W.Germ. the gen. sing. is Goth. 'frijondis,' O.E. 'fréondes,' O.S. 'friundes,' O.H.G. 'friuntes.' But the nom. plu., on the other hand, everywhere shows consonantal inflexion: in Goth. 'frijōnds,' O.E. 'fríend,' O.S. 'friund,' O.H.G. 'friunt,' O.N. 'gefendr.'

(e) *Stems in '-es'*

It is the 'o-' declension principally that has in Germ. supplanted the consonantal declension of neuter nouns in '-es,' '-os' (cf. Gk. γένος, γένεος from *γένεσος, Lat. 'genus,' 'generis' from *'genesis'). A relic of the old inflexion is still seen in the Goth. 'hatis' (of hatred) as well as 'hatizis' from 'hatis' and in the O.E. dat. without ending of words in '-or' like dógor (to the day) as well as 'dógore'; the '-or' goes back by way of '-uz-' to the vanishing grade '-əs-.' In W.Germ. '-az' from Ind.-Germ. '-os' was dropped in the nom. sing.: in the case of a few words such as 'lamb' from *'lambaz' the whole sing. was declined like an 'o-' stem, but the old

inflexion remained in the plural: thus O.H.G. sing. 'lamb,' 'lambes,' 'lambe,' plu. 'lèmbir,' 'lèmbiro,' 'lèmbirum.' 'Lomb' was similarly inflected in O.E., but with this difference that it adopts the vanishing instead of the 'e-' grade in the plural and in the nom. and acc. plu. adds -u taken from the short-stemmed neuters of the 'o-' declension 'lombru,' 'lombra,' 'lombrum.'

2. PRONOUNS

A. Personal Pronouns

Ind.-Germ. showed no difference of gender in the personal pronouns, and their declension was totally different from that of substantives. To the personal pronouns belongs the reflexive which has the same forms for the singular, dual and plural. The dual of the pronouns of the first and second persons is preserved in Germ.

(a) *First Person*

Sing.

(1) Nom. O.Ind. 'ah-ám,' Gk. *ἐγ-ών*, Lat. 'eg-o': cf. Prim. O.N. '-eka' in 'haiteka' (I name). Lett. 'es,' Pruss. 'es' from Ind.-Germ. *'eĝ,' whence Goth. 'ik' unaccented, 'ek' accented; O.S., however, uses 'ec' and 'ic' without distinction, O.N. only 'ek,' O.E. 'ic,' O.H.G. 'ih.'

(2) Gen. Goth. 'meina,' O.N., O.E. 'mín,' O.S., O.H.G. 'mīn' has sprung from a form of the possessive, Goth. 'meins,' that does not admit of further explanation.

(3) Dat. To the Ind.-Germ. *'me' (me) '-s' has been added in Germ.: from *'mes' (to me) arose the unaccented *'miz,' which, however, was transferred to the accented position: hence Goth. 'mis,' Prim. O.N. 'miR,' O.N. 'mér.' In W.Germ. '-z' persisted, where

'miz' was again accented: in O.H.G. 'mir' that had so arisen was made general, as was unaccented 'me' in O.E. which, however, when accented, was lengthened to 'mē'; in O.S. 'mī,' which arose in the same manner as 'mē,' became general—'mē' which was used along with it was taken from O.E.

(4) Acc. Ind.-Germ. *'me' (Gk. με, ἐμέ) which could be strengthened by '-ge,' as in Gk. ἐμέγε. P.Germ. 'mek,' whence always Goth. 'mik,' accented in O.E. as 'mec,' unaccented in O.N. and O.S. as 'mik,' in O.H.G. as 'mih' became general. In O.E. the dat. 'mē' and hence 'mī' and 'mē' in O.S. also assumed accusative functions.

Plu.

(1) Nom. The Ind.-Germ. *'u̯ei̯,' inferred from O.Ind. 'vay-ám' (we) and 'ah-ám' (I) was furnished in Germ. with the plu. mark '-s': Goth. 'weis,' Prim. O.N. 'wiR,' O.S. 'wi,' O.H.G. 'wir.' O.N. 'vér,' O.E. 'we,' 'wē,' O.S. 'wē' (with 'ē²') are probably derived from *'uēis.' The relation of the forms with and without 'r' to one another is as in the dat. sing.

(2) Gen. Goth. 'unsara,' O.E., O.S. 'ūser,' O.H.G. 'unsēr,' O.N. 'vár' are forms of the possessive, Goth. 'unsar,' O.E., O.S. 'ūser,' O.H.G. 'unsēr,' O.N. 'várr.' The possessives are formed from the acc.-dat. 'uns' (us) with the Ind.-Germ. comparative suffix '-ero-,' like the Lat. 'noster' (from nōs) with the comparative suffix '-tero-'; only the O.N. 'vár-r' presupposes instead of 'uns' a *'u̯ē,' which recurs in O.Bg. 'vē' (we two). The 'ē' of O.H.G. 'unsēr' is due to a late influence of the nom. sing. masc. of the possessive 'unsēr,' which itself adopted its 'ē' from the similar form of the adjective, e.g. in 'blintēr man' (a blind man).

(3) Dat. Goth. and O.H.G. 'uns,' corresponding to O.N. 'oss,' O.E. 'ús,' O.S. 'ūs,' is derived from Ind.-Germ. *'-n̥s' (in O.Ind. 'as-mā́n,' us, acc.) and is a vanishing grade of Ind.-Germ. *'nes' (O.Ind. 'nas,' acc. gen. dat.). Goth. 'unsis' beside 'uns' is due to 'mis.'

(4) Acc. has the same form as the dat.: Goth. 'uns,' O.N. 'oss,' O.E. 'ús,' O.S. 'ūs.' O.H.G. 'unsih' is due to 'mih,' O.E. 'úsic,' by the side of 'us,' due to *'mic' (beside 'mec'). As Goth. had 'unsis' as well as 'uns' in the dat. the former assumed the functions of the acc.

Dual

(1) Nom. Goth. 'wit' from *'wet' still seen in O.Norw. 'vet'; from unaccented *'wet' came also O.E., O.S. 'wit,' O.N. 'vit.' P.Germ. *'u̯et,' Ind.-Germ. *'u̯e-d,' is connected with Lith. 'vẽ,' 'vẽdu' (we two), and also with Goth. 'weis,' etc.

(2) Gen. Goth. 'ugkara,' O.N. 'okkar,' O.E. 'uncer' is the same form of the possessive as Goth. 'meina,' etc.; in O.S. 'uncero' there is assimilation with the gen. plu. 'bēthero' (of both). The Goth. possessive 'ugkar,' etc., is a parallel formation to 'unsar.'

(3) Dat. The original form is O.E., O.S. 'unc' from Ind.-Germ. *'n̥-ge' with the same *'-ge' as in Gk. ἐμέγε, Goth. 'mik'; the lengthened grade for the vanishing grade 'n̥' is contained in the Gk. νώ, O.Ind. 'nāu' (acc. gen. dat.); to the same 'n̥' a plural '-s' has been added in O.Ind. 'nas,' Goth. 'uns.' In Goth.-Nor. the influence of the dat. sing. is perceptible here: Goth. 'ugkis,' O.N. 'okkr.'

(4) Acc. In O.E. and O.S. like dat.; in O.E. also 'uncit' in analogy with nom. 'wit.' In Goth.-Nor. the dat. was also transferred to the acc.: hence Goth. 'ugkis,' O.N. 'okkr,' but in Goth. also 'ugk.'

(b) *Second Person*

As far as formation and remodelling are the same in the second as in the first person, they will not be further discussed.

Sing.

(1) Nom. O.Ind. 'tú,' Lat. 'tu': Goth. 'þu,' O.N. 'þú,' O.E. 'ðú,' O.S. 'thū,' O.H.G. 'dū' 'du' (thou).

(2) Gen. Goth. 'þeina,' O.N. 'þín,' O.E. 'ðín,' O.S. 'thīn,' O.H.G. 'dīn.'

(3) Dat. O.N. 'þér,' O.E. 'ðé,' O.S. 'thī,' O.H.G. 'dir.' Goth. 'þus,' in analogy with 'þu.'

(4) Acc. O.N. 'þik,' O.E. 'ðec,' 'ðé,' O.S. 'thic,' 'thī,' O.H.G. 'dih.' Goth. 'þuk,' in analogy with 'þu.'

Plu.

(1) Nom. To *'i̯ū' (cf. O.Ind. 'yū-yám') plural '-s' could be added in Ind.-Germ.: O.Bct. 'yūš,' Lith. 'jūs,' Goth. 'jūs.' In Nor. and W.Germ. assimilation with the vowel of the first pers. has taken place: O.N. 'ér' from *'jēr,' O.E. 'gé,' O.S. 'gī,' 'gē'; in O.H.G. 'ir,' the 'j' has been dropped through the influence of the other cases.

(2) Gen. Goth. 'izwara,' O.N. 'yðuar,' O.E. 'éower,' O.S. 'euwar,' 'iuwer,' O.H.G. 'iuwēr.'

(3) Dat. The W.Germ. forms have sprung from Ind.-Germ. acc. and dat. *'u̯es' (O.Ind. 'vas') with the pre-

fixed particle 'e' (cf. Gk. ἐ-κεῖ, Lat. 'i-ste'): O.E. 'éow,' O.S. 'eu,' 'iu,' 'iuu,' O.H.G. 'iu.' By the side of *'ues' in Ind.-Germ. there was *'sues' (O.Ir. 'si,' Cymric 'chwi'), before Goth.-Nor. 'e' was likewise added: Goth. 'izwis.' In Prim. O.N. *'izwiz' became *'iRwiR,' which by dissimilation of the two 'R's' became *'iðwiR,' whence O.N. 'yðr.'

(4) Acc. is like the dat., but O.H.G. has 'iuwih' and O.E. 'éowic.'

Dual

(1) Nom. From *'iŭ̆,' which remains in O.Ind. 'yuvám,' Lith. 'jŭ-du,' is derived Germ. *'jut'; the form is not found in Goth. In Nor. and W.Germ. assimilation with 'wit' took place: O.N. 'it,' O.E. 'git,' O.S. 'git.'

(2) Gen. Goth. 'igqara,' O.N. 'ykkar,' O.E. 'incer' (not found in O.S.).

(3) Dat. Goth. 'igqis,' O.N. 'ykkr,' O.E., O.S. 'inc.' Origin unknown.

(4) Acc. is like the dat., but also 'incit' in O.E. modelled on 'git.'

(c) *Reflexive*

The cases of the reflexive are formed from a stem *'se' (cf. Lat. 'sē'), like the singular cases of the real personal pronouns. Thus gen. Goth. 'seina,' O.N. 'sín,' O.H.G. 'sīn'; dat. Goth. 'sis,' O.N. 'sér'; acc. Goth., O.N. 'sik,' O.H.G. 'sih.' The dat. is wanting in O.H.G., and the whole reflexive in O.E. and O.S.

B. Pronouns with Genders

(a) *The Stems*

(α) *Demonstrative*

(1) In Ind.-Germ. the two stems *'so' and *'to' supplemented each other in such a way that the nom. sing. masc. and fem. were formed from *'so,' and all the other cases from *'to.' Hence O.Ind. 'sá,' Gk. ὁ, Goth. 'sa' (this, m.), O.Ind. 'sā́,' Gk. ἡ (Dor. ᾱ́), Goth. 'sō' (this, f.), but O.Ind. 'tád,' Gk. τό, Goth. 'þata' (this, n.).

(2) In Ind.-Germ. *'si̯o, *si̯ā' could also stand for *'so' and *'sā,' and *'ti̯o-' and *'ti̯a-' for *'to-' and *'tā-': O.Ind. nom. masc. 'syá,' fem. 'syā́,' neut. 'tyád,' O.H.G. nom. sing. fem. 'siu' (she), nom. acc. plu. neut. 'diu.'

(3) Ind.-Germ. *'kho-' remains in Lat. 'hī-c,' 'hae-c,' 'hō-c,' O.S. 'hē' (he), O.M.G. 'her.'

(4) Ind.-Germ. *'ei̯-' (vanishing grade *'i-') was the anaphoristic pronoun "he," "the same"; hence Lat. 'is,' Goth. 'is,' O.H.G. 'er'; Lat. 'ea,' Goth. 'ija' (only acc.); Lat. 'id,' Goth. 'ita,' O.S. 'it,' O.H.G. 'iz.'

(β) *Interrogative and Indefinite*

(1) Ind.-Germ. *'kʷo,' *'kʷā': nom. sing. masc. O.Ind. 'kás,' Lith. 'kàs,' Goth. 'hwas,' O.E. 'hwā,' O.S. 'hwē'; fem. O.Ind. 'kā́,' Goth. 'hwō'; neut. Lat. 'quod,' Goth. 'hwa,' O.N. 'huat,' O.E. 'hwæt,' O.S. 'hwat,' O.H.G. 'hwaz.'

(2) Ind.-Germ. *'kʷi-,' Gk. τίς, τί, Lat. 'quis,' 'quid'; in Goth. 'hwi-leiks' (what sort of) which corresponds to O.E. 'hwilc,' O.S. 'hwilic' (which); also in O.H.G. 'hwer' (who).

(b) *Declension*

Paradigm of the Stems 'so,' 'to' (si̯o, ti̯o)

(a) *Masculine*

Sing.

	Goth.	O.N.	O.E.	O.S.	O.H.G.
Nom.	sa.	sá.	sé, se.	se, thē, thie.	der.
Acc.	þana.	þann.	ðone.	{thena, thana, then.	den.
Gen.	þis.	þess.	ðæs.	thes.	des.
Dat.	þamma.	þeim.	ðǽm.	themu.	demu, demo.
Instr.			ðý.	thiu.	

Plu.

Nom.	þai.	þeir.	ðá.	thē, thea.	dē, die.
Acc.	þans.	þá.	ðá.	thē, thea.	dē, die.
Gen.	þizē.	þeira.	ðára.	thero.	dero.
Dat.	þaim.	þeim.	ðǽm.	thēn.	dēm.

Sing.

(1) Nom. Ind.-Germ. *'so' had either no ending as in O.Ind. 'sá,' Gk. ὁ, Goth. 'sa,' O.N. 'sá,' or '-i' as Lith. 'tasaĩ' from *'tas-saĩ' (cf. O.Lat. 'qo-i,' whence 'quī'), Goth. 'sai' (see ! lo !), O.E. 'sé,' 'se' (through contraction in an unaccented position), O.S. 'se,' as well as 'thē' with 'th' from the other cases, whence 'thie.' The noms. of the other pronouns received '-s': Lat. 'is,' Goth. 'is,' O.H.G. 'er.'

To a different levelling of the various accented forms are due the differences of O.M.G. 'her' (he) and O.S. 'hē,' O.H.G. 'hwer' (who, interr.) and O.S. 'hwē.' The 'r' of O.H.G. 'er,' 'her,' 'hwer' was transferred to *'thē': 'der' arose from unaccented *'thēr.'

(2) Gen. Ind.-Germ. with the ending '-so' (cf. 'o-' stems): *'te-so.'

(3) Dat. The final vowel of Goth. 'ƕamma' (to whom, interr.), parallel to 'þamma,' is medially preserved before an added 'h' in 'ƕammēh' (to each): afterwards the case was an instr. (cf. p. 83); as well as '-ē' there is '-ō' in ablaut relation, which is the origin of W.Germ. '-u' in O.S. 'themu,' O.H.G. 'demu'; the 'e' of these changes by ablaut to 'a' (Ind.-Germ. 'o') in 'þamma.' The 'mm,' which was shortened to 'm,' when unaccented, in O.S. and O.H.G. has come from Ind.-Germ. 'sm,' which is found in O.Ind. dat. 'tasmāi' and abl. 'tá-smād': the O.H.G. 'demo' with '-o' from '-ō' corresponds to the latter. O.N. 'þeim,' O.E. 'ðǽm' are like O.Bg. instr. 'tēmĭ' (Ind.-Germ. *'toimi.')

(4) Acc. Ind.-Germ. *'tó-m' as in nouns: O.Ind. 'tám,' Gk. τόν, Lat. 'is-tum,' O.N. 'þann'; in O.S. 'then,' O.H.G. 'den,' 'e' is due to the influence of the other cases. The particle *'ōm' can also be added to the form; it is seen in the Gk. ἐγ-ών and O.Ind. 'ahám': Goth. þana, O.E. 'ðone,' O.S. 'thana' from *'þanō,' as well as Goth. 'ƕana' (whom, acc. interr.) from 'ƕanō' (still in 'ƕanōh' ("each," acc.).

(5) Instr. O.E. 'ðý,' to which the interrogative 'hwý,' 'hwí' corresponds, goes back over *'þī' to the Ind.-Germ. loc. *'te-i' formed like in nouns (cf. Gk. τεῖ-δε). A true nounally formed instr. from the stem *'tio-' is O.S. 'thiu.'

Plu.

The 'o-' stems form their plu. from a stem in '-oi.'

(1) Nom. in Ind.-Germ. without ending: Gk. τοί, Lat.

'is-tī,' O.Ind. 'tḗ,' Goth. 'þai,' etc.; in the O.N. 'þeir' the plu. '-r' from '-z' from '-s' has been added.

(2) Gen. in Ind.-Germ. *'toi-sōm': O.Ind. 'tḗṣām,' Pruss. 's-teison,' O.Bg. 'tēchŭ,' O.N. 'þeira,' O.E. 'þā́ra.' Goth. 'þizē,' O.S. 'thero,' O.H.G. 'dero' have their 'e' (Goth. 'i') from the gen. sing.

(3) Dat. was Ind.-Germ. instr. *'toi-mis': O.Bg. 'tēmĭ,' O.E. 'ðǽm' (with 'i-' umlaut), etc.

(4) Acc. in Ind.-Germ. like a noun from 'o-' stem: Cret. τόνς, Goth. 'þans,' etc.

(β) *Feminine*

Sing.

	Goth.	O.N.	O.E.	O.S.	O.H.G.
Nom.	sō.	sú.	séo.	thiu.	diu.
Acc.	þō.	þá.	ðá.	thia.	dea, dia.
Gen.	þizōs.	þeirar.	ðǽre.	thera.	dera.
Dat.	þizai.	þeire.	ðáre, ðǽre.	theru.	deru.

Plu.

Nom.	þōs.	þǽr.	ðá.	thē, thea.	deo, dio.
Acc.	þōs.	þǽr.	ðá.	thē, thea.	deo, dio.
Gen.	þizō.	þeira.	ðára.	thero.	dero.
Dat.	þaim.	þeim.	ðǽm.	thēm.	dēm.

Sing.

(1) Nom. Ind.-Germ. *'sā': O.Ind. 'sā́,' Dor. ἁ̄́, Goth. 'sō.' In O.N. unaccented 'sō' was shortened to *'su,' which was transferred to the accented form and lengthened to 'sú.' Ind.-Germ. had also *'siā,' which when unaccented became *'siu' in W.Germ, whence O.E. 'séo'; O.S. 'thiu,' O.H.G. 'diu' have taken their 'th' (d) from the other cases.

(2) Gen. Ind.-Germ. *'te-sās' (beside *'té-si̯ās,' O.Ind. 'tásyās'): Goth. 'þizōs,' O.S. 'thera,' O.H.G. 'dera.' O.N. 'þeirar,' O.S. 'ðære' have taken Germ. 'ai' from the gen. plu.

(3) Dat. Ind.-Germ. *'te-sāi' (beside *'te-si̯āi,' O.Ind. 'tásyāi'): Goth. 'þizai.' O.N. 'þeire,' O.E. 'ðáre' have taken their 'ai' from the gen. sing.; the later O.E. 'ðære' shows further assimilation with this. O.S. 'theru,' O.H.G. 'deru' have taken their '-u' from the noun.

(4) Acc. is, like all accusatives in Ind.-Germ., formed as in nouns: O.Ind. 'tā́m,' Gk. τᾱ́ν. Goth. 'þō' is from the accented form, O.N. 'þá,' O.E. 'ðá' are derived from the unaccented form which was lengthened in a position to which accent was restored. O.S. 'thia,' O.H.G. 'dea,' 'dia' are derived from the unaccented Ind.-Germ. *'ti̯ām.'

Plu.

(1) Nom. acc. nounal in Ind.-Germ.: O.Ind. 'tā́s,' Lith. 'tõs,' Goth. 'þōs.' In Nor. unaccented *'þōs' became *'þar,' which when accented was lengthened to 'þār' (as still in East Nor.), whence O.N. 'þǽr' ('æ' from 'á' before 'R'). O.E. 'þá' corresponds to 'þār.' Beside Ind.-Germ. *'tās' stood *ti̯ās whence Germ. *'þiðz' from which came O.H.G. 'deo,' 'dio.' In this the unshortened form, together with the 'ō-' colouring as in the O.H.G. 'zwō' = Goth. 'twōs' (fem. of 'twai' = two), had persisted in an accented position, in contradistinction to 'gebā' in which a kind of shortening of '-ō' to '-ā' in an unaccented syllable has taken place. In O.S. 'thē,' 'thea' made their way from the masc. because the other plu. cases were like the masc.

(2) Gen. and dat. as in the masc.; but in Goth. there is a difference between 'þizē' (m.) and 'þizō' (f.) similar to that in the noun.

(γ) *Neuter*

In O.N. the dat. sing. has a special form. The instr. sing. is found in all the Germ. languages.

(1) Nom.acc.sing.ending in Ind.-Germ. was '-d': O.Ind. 'tád,' Gk. *τό* from **τόδ*, Lat. 'is-tud,' O.N. 'þat,' O.E. 'ðæt,' O.S. 'that,' O.H.G. 'daz.' In Goth. 'þata,' as 'ƕarjatōh' (each, neut.) shows, the same **'-ōm'* has been added as in 'þana.'

(2) Dat. sing. O.N. 'þí' is strictly a loc. like the O.E. instr. 'þý.'

(3) Instr. sing. Goth. 'þē,' O.N. 'þué' (modelled on the interrog. pron. 'hué') show nounal formation and ablaut relation with **'-ō'* (O.S., O.H.G. '-u') of the instr. O.E. 'ðý' and O.S. 'thiu' are used for the masc. and neut.: O.H.G. 'diu' only for the neut.

(4) Nom. acc. plu. nounal formation: Goth. 'þō.' From the stem 'tio-,' O.S. 'thiu,' O.H.G. 'diu.' The O.E. 'ðá' has taken the form of the masc. and fem. O.N. 'þau' is really nom. acc. masc. dual (O.Ind. 'tā́u').

3. ADJECTIVES

(A) *Declension*

In Ind.-Germ. there were also in the case of adjectives vocalic and consonantal stems which were declined like nouns, as we see in Greek and Latin. The consonantal adjectives have died out in Germ., so that we only distinguish 'o-,' 'i-,' and 'u-' stems. Germ. adjectives are inflected in a new and indeed in a double manner;

first, pronominally (strong declension) and, secondly, as 'n-' stems (weak declension).

(a) *Strong Declension*

Adjectives which were in their meaning near the pronouns had already in Ind.-Germ. taken pronominal inflexions; e.g. O.Ind. 'ányas' (other), 'sárvas' (all) are declined almost exactly like pronouns; also Gk. ἄλλος and Lat. 'alius' form their neuters ἄλλο, 'aliud'; and Lat. 'alius,' 'tōtus' form their gen. 'alīus,' 'totīus' and dat. 'aliī,' tōtī like 'eius,' 'eī.' In Germ. the pronominal inflexions extended first over all the adjectival 'o-' stems which had three genders like the pronominal 'o-' stems and formed their feminine like 'ā-' stems. Hence, e.g. Goth. 'blinds' (blind) has 'blindana' in the acc. sing. masc. and 'blindamma' in the dat. sing. masc. and neut. In several cases, as, e.g. in the nom. sing. masc. (Goth. 'blinds') and gen. sing. masc. ('blindis'), the nounal and pronominal inflexions were in agreement in Ind.-Germ. Isolated forms of the nounal declension are still preserved in Germ., such as the nom. acc. sing. neut. 'blind' in Goth. as well as 'blindata,' 'blint' in O.H.G. as well as 'blintaz,' but only 'blind' in O.E. and O.S.; in O.N., on the other hand, 'blint' from *'blind-t.' In the dat. sing. O.N. has the pronominal instr. 'blindum' in the masc. and the nounal 'blindu' in the neut., while Goth. and W.Germ. are in this case pronominally inflected. Goth. has also preserved the nounal dat. sing. fem. 'blindai'; on the other hand, O.N. has 'blindri,' O.E. 'blindre,' O.S. 'blindaro,' O.H.G. 'blinteru.'

The cases, which had a 'z' ('r'), were assimilated in the vowel which stood before this. Hence in Goth.

gen. sing. fem. 'blindaizōs' (beside 'þizōs') in analogy with gen. plu. fem. 'blindaizō,' while in Nor. and W.Germ. the gen. plu. of all three genders has modelled itself on the gen. and dat. sing. fem.: O.N. 'blindra' on 'blindrar,' 'blindri,' O.E. 'blindra' on 'blindre,' 'blindre' ('e' before 'r' phonologically dropped), O.S. 'blindaro' on 'blindara,' 'blindaro,' O.H.G. 'blintero' on 'blintera,' blinteru.'

In O.H.G. the presence in the nom. acc. sing. neut. of 'blint' and 'blintaz' as well as 'daz' brought about a renewed dependence on the pronoun, while in the nom. sing. masc. beside 'blint' a form 'blintēr' was created in analogy with *'thēr' (whence 'der'), and in the nom. sing. fem. and nom. acc. plu. neut. beside 'blint' (from *'blintu') a form 'blintiu' in analogy with 'diu.' The form 'blint,' which had no ending and which generally had with it in the nom. a form with an ending, was now transferred to the nom. plu. masc., and fem. where otherwise 'blinte' and 'blinto' (in analogy with 'deo,' 'dio') were respectively used; this use was only predicative, and in consequence 'blint' was also in the nom. plu. neut. limited to the predicate (thus only 'blintiu barn,' "blind children," but 'diu barn sint blint' as well as 'blintiu').

The Ind.-Germ. 'i-' stems had exactly the same forms for the masc. and fem., and separate forms only for the neut. and in the nom. acc. sing. and plu. only: Gk. ἴδρις, ἴδρι, Lat. 'levis,' 'leve' (from *'levi'). In Germ. the pronominal declension of the 'o-' class attracted the inflexions of the 'i-' class, but the latter adopted in particular the forms of the 'i̯o-' stems. The reason for this was, as Goth. shows (e.g. in 'brūks,' "useful," from *'brūkiz') that the 'i-' class and the so-called participles

of necessity, which belonged to the '̯io-' stems (as O.Ind. 'yáj-ya-s,' "venerable" = Gk. ἄγ-ιο-ς, "holy"), had in common the nom. sing. in '-i-s,' which also appears in other Ind.-Germ. languages as a vanishing grade in isolated '̯io-' stems, e.g. in O.Lat. 'alis' for 'alius.' Hence of the Goth. 'hrains' (clean), the acc. sing. masc. is 'hrainjana' and the dat. sing. masc. and neut. 'hrainjamma.' Old forms, however, lived on, where the pronominal inflexions did not diverge from the nounal; hence Goth. nom. sing. masc. fem. 'hrains,' nom. acc. sing. neut. 'hrain,' gen. sing. masc. fem. 'hrainis.' But there has been here also a going over to the '̯io-' declension: thus acc. plu. masc. 'hrainjans' nom. acc. plu. neut. 'hrainja,' and uniformity, except in nom. sing., has been established in the bulk of adjectives by the formation of a fem. in '-i̯ā' (e.g. in acc. sing. 'hrainja.' In O.N. and W.Germ. the '̯i-' stems have completely coincided with the '̯io-' stems.

The 'u-' stems vacillated in Ind.-Germ. between a form which agreed with the masc. and one in '-i̯ē,' 'ī,' which changed with '-i̯ā': cf. O.Ind. 'tanú-ṣ' (thin), fem. 'tanú-ṣ' and 'tanv-ī́,' Gk. θῆλυ-ς, fem. θῆλυ-ς and θήλεια from *θηλεϝ-ια. Corresponding to this is probably the fact that the fem. of the Goth. 'hardus' (hard) in the nom. sing. is 'hardus,' but shows 'j-' forms in the other cases. From a P.Germ. form, however, like the acc. plu. fem. *'harðu̯-i̯ōz,' arose *'harðiðz,' because 'u̯' disappears between a consonant and '̯i' (cf. O.Ind. 'pítṛ-vyas,' "paternal uncle," O.H.G. 'fatureo' with 'e' for '̯i'). When the 'u-' stems were also attracted by the pronominally inflected 'o-' stems, '̯io-' forms appeared everywhere in the masc. and fem., but with omission of the preceding 'u̯,' e.g. Goth. acc. sing. masc.

'hardjana,' nom. acc. sing. neut. 'hardjata' as well as 'hardu.' Since O.N. 'u' in '-uR' has always disappeared, and W.Germ. '-u' generally (especially after a long syllable), the adjectival 'u-' declension has on the whole left but few clear traces behind it in O.E. ('cucu' = alive, 'wlacu' = lukewarm). As the oblique cases of the class were formed with 'i̯,' there is frequent fluctuation between the 'o-' and 'io-' declensions: thus for O.N. 'gl̨oggr' (distinct) = Goth. 'glaggwus,' we generally find gløggr with 'i-' umlaut in analogy with the oblique cases: in O.H.G. for 'hart' = Goth. 'hardus' 'herti' is also found.

(b) *Weak Declension*

In Ind.-Germ. adjectives could be enlarged by the addition of '-en,' '-on' and made into nouns: Gk. σταβός (squinting), σταβών (squinter), Lat. 'multibibus' (much-drinking), 'bibō -ōnis' (drinker). As the article readily attaches itself to the substantive there was formed in P.Germ. by the side of a form like *'blindoz' (blind) another *'so blindõ,' gen. '-en-es' (the blind one, masc.). To a combination like the latter a noun in apposition could be added, e.g. *'so blindõ mannõ,' lit. "the blind one, namely the man," which, however, soon came to mean "the blind man." From such combinations there arose the feeling that the 'n-' stem belonged altogether to the article, and so between the article and the original adjectival stem a separation came about, with the result that the 'n-' stem was regularly used with the substantive *with* the article and the other with the substantive *without* the article, e.g. in Goth. 'sa blinda manna' (the blind man), 'blinds manna' (a blind man). The consequence of this was that a feminine

and a neuter were added to the masc. adjectival '-n-' stem: the declension of the adjectival '-n-' stems was brought into harmony with that of the substantival: Goth. nom. sing. 'blinda,' 'blindō,' 'blindō,' gen. 'blindins,' 'blindons,' 'blindins.' The weak declension of the adjectival '-i-' and '-u-' stems was formed from their '-i̯o-' forms: Goth. 'hrainja,' 'hrainjō,' 'hrainjō'; 'hardja,' 'hardjō,' 'hardjō.'

B. *Comparison*

(a) *Comparative*

The comparative was formed in Ind.-Germ. by means of '-i̯es-,' '-i̯os,' which appeared as a lengthened grade '-i̯ōs' in nom. sing., e.g. in Lat. 'māior' from *'māi̯ōs,' like 'honor' from 'honōs' and as a vanishing grade '-is,' e.g. in Lat. 'mag-is.' In some of the Ind.-Germ. languages the comparative stem was enlarged by '-en-,' '-on-,' as Gk. *ἡδίων* from * *ἡδ-ισ-ων*, e.g. shows: in Germ. also the comparative is formed by means of '-izen-.' The comparative suffix was added in Ind.-Germ. to the root, not to the positive stem: Lat. 'alt-ior' comp. of 'alt-u-s,' Gk. *ἡδ-ίων* of *ἡδ-ύ-ς*, *αἰσχ-ίων* of *αἰσχ-ρό-ς*. In Germ. '-izen-' is substituted for an '-o-,' '-i̯o-,' '-i-,' '-u-' of the positive: Goth. 'hauhs' ('o-' stem, "high"), 'hauhiza,' O.N. hǿre (with 'i-' umlaut), O.E. 'híehra' (with 'i-' umlaut), O.H.G. 'hōhiro'; O.S. 'lang' ('o-' stem, "long"), 'langiro'; Goth. 'alþeis' ('i̯o-' stem, "old") 'alþiza,' O.N. 'ellre,' O.E. 'ieldra,' O.H.G. 'altiro'; Goth. 'sūts' ('i-' stem, "sweet"): 'sūtiza'; Goth. 'hardus' (hard); 'hardiza,' O.H.G. 'hartiro.'

In addition to '-izen-,' '-ōzen-' is also found in Germ.; in Goth. and O.H.G. it is almost entirely confined to

'o-' stems, e.g. Goth. 'swinþs' (strong), 'swinþōza,' O.H.G. 'hōh' (high) 'hōhōro.' This ending arose through the influence of the 'i̯o-' stems, in which the 'i̯' was identified with that of their comparative suffix '-i̯os-,' since, e.g. *'niu̯-i̯o-s' (Goth. 'niu-jis,' new) *'niu̯-i̯os-on-' (newer) were divided into *'niu̯i-o-s,' *'niu̯i-ōs-on-,' in consequence a form *'swinþ-ōz-on-' was formed from *'swinþ-o-s.'

The comparative in Ind.-Germ. formed its fem. by '-i̯ē,-' vanishing grade '-ī-': O.Bg. 'dobrējĭsi' (better). The assimilation to the weak declension of the masc. led to the nom. sing. in '-ī' going over to the '-īn-' class in Goth.-Nor. and to the common weak fem. in W.Germ.: Goth. 'hauhizei,' O.N. 'hǿre,' O.E. 'híehre,' O.S. 'lengira,' O.H.G. 'hōhira.'

(b) *Superlative*

The superlative was formed in Ind.-Germ. by the addition of '-to-' to the vanishing grade of the comparative suffix, '-is-'; Gk. *ἥδ-ισ-τος, αἴσχ-ισ-τος.* '-isto-' remained in Germ.: Goth. 'hauhisto,' O.N. 'hǿstr,' O.E. 'híehsta,' O.S., O.H.G. 'hōhisto.' But '-ōsto-,' corresponding to the comparative is also found; in Goth. and O.H.G. it is almost entirely confined to 'o-' stems: Goth. 'armōsto' (poorest), O.H.G. also 'hōhōsto.'

The superlative is inflected strong or weak in Goth. and O.N. according to its syntactical position; in W.Germ. only weak after the manner of the comparative.

(C) *Formation of Adverbs*

The adverbs formed from adjectives came from the 'o-' stems in P.Germ., since a nounally formed abl. sing. neut. in '-ōd' like *'galīkōd' (lit. from the like) was

made into a noun and became an independent word: Goth. 'galeikō,' O.N. 'glíka,' O.S. 'gilīco,' O.H.G. 'gilīhho.' The '*i̯o-*' stems therefore formed their adverbs in '*-i̯ōd*,' which is still seen in the Goth. 'gahāhjō' (coherent, continuous). On the other hand, the '*i-*' and '*u-*' stems, after the manner of the '*o-*' stems, took '*-ōd*,' which was added directly to the root, since adverbs, as well as adjectives, were independent like comparatives. Cf. O.H.G. 'scōno' with 'scōni' (beautiful), Goth. 'skauns'; O.H.G. 'harto' with 'hėrti' (hard), Goth. 'hardus'; Goth. 'glaggwō' with 'glaggwus' (clear).

In general use is *'*ŏd*' only in O.H.G. (as '*-o*'). In O.E. it is only sporadic (as '*-a*'), e.g. in 'singala' von 'singal' (lasting); it is more frequent here in compounds of '*-inga*,' '*-unga*,' whose stem-forming component '*ing-*' (cf. e.g. '*Hreðling*' = Hreðel's son) indicates its origin and thus strengthens its ablative meaning; so are 'eallinga,' 'eallunga' formed from 'eall' (entirely). The O.E. adverbs, however, have usually the ending '*-e*' whose basis *'*-ēd*' stands in ablaut relation to *'*-ōd*' and, in the same way as this, has been transferred to '*i-*' and '*u-*' stems: hence 'gelíce' from gelíc (like) and 'swóte' (with no '*i-*' umlaut) from 'swéte' (sweet) from *'swōti'; '*i̯o-*' stem for an earlier '*u̯-*' stem: O.Ind. 'svādu-š,' Gk. *ἡδύ-ς*, like O.H.G. 'harto' from 'hėrti.'

In O.N. '*-a*' from *'*-ōd*' is regular only in the case of adjectives in '*-ligr*,' e.g. in 'varliga' (cautious); in others it is only sporadically preserved. In other cases the acc. sing. neut. in '*-t*' has become an adverb, e.g. 'miúkt' from 'miúkr' (soft).

In Goth. also adverbs in '*-ō*' are sporadic only. Usually the adverb is formed in '*-ba*' which is added

to all stems: 'baírhtaba' (brightly), 'sunjaba' (truly), 'arni-ba' (surely), 'harduba' (hardly, severely). The source of this '-ba' is probably an Ind.-Germ. instrumental suffix '-bhō' whose secondary form '-bho' is seen in the Gallic '-βo' and in the plural in the Lat. '-bus' from *'-bos' in 'hominibus,' etc.

4. NUMERALS

(A) *Cardinals*

(*a*) 1–4

1–4 were inflected in the three genders in Ind.-Germ.

1. Ind.-Germ. *'oi̯nos,' O.Lat. 'oinos,' Goth. 'ains,' O.N. 'einn,' O.E. 'án,' O.S. 'ēn,' O.H.G. 'ein.'

2. Ind.-Germ. dual: Gk. δύο (δύω), δυοῖν. In Germ. the plural inflexion has been added: Goth. nom. masc. 'twai,' fem. 'twōs,' neut. 'twa.' Dual forms are nom. masc. O.E. 'tú' from *'tuō,' nom. neut. O.E. 'twā,' O.S. 'twē' from *'tu̯ai' (O.Ind. 'dvē'), O.N. 'tvau' = O.Ind. 'dvā́u,' masc.

3. Ind.-Germ. nom. masc. *'trei̯-es': O.Ind. 'tráyas,' Cret. τρέες, Goth. *'þreis' (acc. þrins), O.N. 'þrír,' O.E. 'ðrí.' Germ. like Gk. and Lat. has levelled the fem. (O.Ind. 'tisrás,' O.Ir. 'teoir') with the masc. after the fashion of the substantival 'i-' stems (Goth. acc. 'þrins'). But Nor. and W.Germ. have formed a new nom. acc. fem. on the model of the 'ā-' declension: O.N. 'þriár,' O.E. 'ðréo,' O.S. 'threa,' O.H.G. 'drīo.' On the other hand, the dat. fem. is as in masc. neut.: O.N. 'þrimr,' etc.

4. Ind.-Germ. nom. masc. *'kᵛetu̯or-es': O.Ind. 'catvā́ras,' Dor. τέτορες. The consonantal declension seems to have been supplanted in O.N. masc. 'fiórer,'

fem. 'fiórar,' neut. 'fiogor' by the 'o-' declension, but with stem-differences. In Goth. and W.Germ. 4–19 have become indeclinable (but v. p. 124): Goth. 'fidwōr,' O.E. 'féower,' O.S. 'fiu- war,' O.H.G. 'feor'; as Goth. shows, the basis is nom. acc. neut. (O.Ind. 'catvári'). The initial 'f' is due to assimilation with 'fimf.'

(*b*) 5–10

5. Ind.-Germ. *'penkᵛe,' Gk. πέντε, Lat. 'quinque,' Goth., O.H.G. 'fimf,' O.N. 'fimm,' O.E. 'fíf,' O.S. 'fīf.' The second 'f' is due to assimilation with the first.

6. Ind.-Germ. *'seks,' Gk. ἕξ, Lat. 'sex,' Goth. 'saíhs,' O.N. 'sex,' O.E. 'siex,' O.S., O.H.G. 'sehs.'

7. Ind.-Germ. *'septm̥,' Gk. ἑπτά, Lat. 'septem.' In Germ. the ordinal *'septm̥-tó-' became *'sepm̥tó-' through dissimilation of the two 't's': hence also the cardinal *'sepm̥': Goth. 'sibun,' O.N. 'siau,' O.E. 'seofon,' O.S. 'siƀun,' O.H.G. 'sibun.'

8. Ind.-Germ. *'októ' (Gk. ὀκτώ, Lat. 'octō') and *'októu' (O.Ind. 'aṣṭáu'): the latter became in Goth. 'ahtau,' O.N. 'átta,' O.E. 'eahta,' O.S., O.H.G. 'ahto.'

9. Ind.-Germ. *'neun': O.Ind. 'náva,' Lat. 'novem,' Goth., O.H.G. 'niun,' O.N. 'nío,' O.E. 'nigon,' O.S. 'nigun.'

10. Ind.-Germ. *'dékm̥': Gk. δέκα, Lat. 'decem,' Goth. 'taíhun,' O.N. 'tío,' O.E. 'tíen.' O.S. 'tehan,' O.H.G. 'zehan' presuppose an "ablauting" Ind.-Germ. *'dékom.'

(*c*) 11–12

	Goth.	O.N.	O.E.	O.S.	O.H.G.
11.	ainlif.	ellefo.	endleofan.	ellevan.	einlif.
12.	twalif.	tolf.	twelf.	twelif.	zwėlif.

The second component belongs to the root *'leiḳᵛ' (leave), Gk. λείπω, Lat. 'linquō,' Lith. 'lëkù'; its 'k-' sound has been preserved in this case only in O.Norw. 'œllugu' (11): the meaning is "(ten) leaving one, two over," "(ten and) one, two left over." Besides Germ. this element enters into 11 and 12 only in Lith., in which, however, it has penetrated as far as 19 ('dvýlika' 12, trýlika 13, etc.); on the other hand, cf. Gk. δώδεκα, Lat. 'duōdecim,' etc.

(*d*) 13–19

Germ. has here also compounds of 10, e.g. Goth. 'fimftaíhun' (15), O.N. 'fimtán,' etc.

5 to 19 are indeclinable in Germ. as in Ind.-Germ., but Goth. and W.Germ. have adopted secondary forms for them (as also for 4) on the model of 3 in the gen. and dat. and followed the 'i-' declension, thus Goth. 'twalibē,' 'twalibim,' O.H.G. 'zwèlfeo,' 'zwèlfim.' In W.Germ. the nom. acc. have followed suit: thus in O.H.G. masc. fem. 'zwèlfi,' neut. 'zwèlfiu.'

(*e*) 20–60

Instead of the old expressions like Gk. τριάκοντα, Lat. 'trīgintā,' there appeared in Germ. for the multiples of ten up to 60 formations with the noun *'teʒu-s' (decade), which is related to the Goth. 'taíhun.' Thus, e.g. 40: Goth. 'fidwōr tigjus,' O.N. 'fiórer tiger,' O.E. 'féowertig,' O.S. 'fiwartig,' O.H.G. 'fiorzug' (indeclinable in W.Germ.).

20 in O.N. is still 'tottogo' from *'tō-tuʒu' (two decades): the nom. dual has become indeclinable. In Goth. and W.Germ. the plu. also encroached here, in W.Germ. with the dat. of 2 in the instrumental sense:

O.E. 'twǽntig,' O.S. 'twēntig,' O.H.G. 'zweinzug' (the tens with 2); in Goth. only the dat. of 20, 'twaim tigum,' is found.

(*f*) 70–120

	Goth.	O.N.	O.E.
70	sibuntēhund.	siau tiger.	hundseofontig.
80	ahtautēhund.	átta tiger.	hundeahtatig.
90	niuntēhund.	nío tiger.	hundnigontig.
100	taíhuntēhund.	tío tiger.	hundtéontig.
110		ellefo tiger.	hundendleofantig.
120		hundrað.	hundtwelftig.

	O.S.	O.H.G.
70	antsibunta.	sibunzo.
80	antahtoda.	ahtozo.
90	nigonda.	
100	hund.	zehanzo.

The forms have not been explained. That O.N., like all the other Germ. dialects, originally had the break after 60 is evident from the contrast of 'tuítøgr' (20 years old), 'sextøgr' (60 years old), and 'siaurøðr' (70 years old), 'tolfrøðr' (120 years old). The basis of the difference is that the Ind.-Germ. decimal system has been influenced by the Babylonian sexagesimal system. Hence O.N. 'hundrað' without addition means 120 (=2×60), on the other hand, O.E. 'hundred,' O.S. 'hunderod' as well as 'hund' (=Lat. 'centum,' Gk. ἑκατόν) 100: the latter is in O.N. 'tío tiger' or 'hundrað tírøtt' (decimal hundred). 'Long hundred' and 'grosshundert' are still used in English and German respectively for 120. As 120=12×10 and 110=11×10, Germ. had also created special unit-expressions for 12 and 11.

(*g*) 200–1200

300 to 900 were formed in Ind.-Germ. by prefixing the unit before the plu. of the neuter substantive " 100." Thus 300 O.Ind. 'trīṇi śatāni,' O.Bg. 'tri sŭta,' Goth. 'þrija hunda,' O.E. 'ðréo hund,' O.H.G. 'driu hunt.' For the dual 200, O.Ind. 'dvē śatē,' O.Bg. 'dŭvē sŭtē,' the plu. also was used in Germ.: Goth. 'twa hunda,' etc. In O.N. 'tvau hundroð' means 240, 'þriú hundroð' 360, etc.

1000 is a substantive in Germ.: Goth. 'þūsundi,' fem., O.E. 'ðúsend,' neut., O.H.G. 'dūsunt,' fem. neut. It corresponds to O.Bg. 'tysęšta,' fem., from Ind.-Germ. *'tūs-ḱm̥tiē' (lit. power-hundredship) corresponding to O.Ind 'távas' (power, neut.) and *'km̥t-' (100). In O.N. 'þúsund,' fem., generally means 1200: in 'þúshund,' 'þúshundrað' 120 (100) is again made use of.

(B) *Ordinals*

1st, Goth. 'fruma,' O.E. 'forma,' O.S. 'formo': formed with the superlative suffix '-mo-' and connected with the Goth. 'faúra,' O.E. 'fore,' O.S. 'fora' (before). The ordinary superlative suffix is found in O.N. 'fyrstr,' O.E. 'fyrest,' O.S., O.H.G. 'furisto' and O.E. 'ǽrest,' O.S. 'ērista,' O.H.G. 'ēristo,' related to Goth. 'air' (early).

2nd, Goth. 'anþar,' O.N. 'annarr,' O.E. 'óðer,' O.S. 'ōthar,' O.H.G. 'ander': it corresponds to O.Ind. 'ántaras' (different from), and is a comparative in '-tero-' like Gk. *δεύ-τερος* and *γλυκύ-τερος*.

3rd, formed in Ind.-Germ. from 3 with '-tio-': Lat. 'ter-tius,' O.Bg. 'tre-tĭjĭ': Goth. 'þridja,' O.N. 'þriðe,' O.E. 'ðridda,' O.S. 'ðriddio,' O.H.G. 'dritto.'

From 4th onwards, the ordinals were formed by

means of '-to-' in Ind.-Germ.: Lat. 'quartus,' 'quintus,' Gk. τέταρτος, πέμπτος, etc. Hence, e.g. Goth. 6th 'saíhsta,' 8th 'ahtuda,' 10th 'taíhunda.'

VERBS

1. Forms

The forms of the Ind.-Germ. verb have only been imperfectly preserved in Germ. There are still found in Germ.:

(1) Two tenses: present and preterite. The latter has partly come from an Ind.-Germ. perfect (strong pret.) and partly been formed through a periphrasis with an aorist (weak pret.). Otherwise the Ind.-Germ. aorist has been lost with the exception of one definite form and a few sporadic remains. The Ind.-Germ. imperfect, pluperfect and future have completely disappeared.

(2) Three moods: indicative, optative and imperative. The Ind.-Germ. subjunctive is lost, but in certain classes of verbs it has replaced the optative.

(3) Two voices: active and middle; the latter was reflexive in Ind.-Germ., but became passive in Germ. It is preserved in Goth. alone, and only in the pres.

(4) Three numbers: singular, dual and plural. The dual is only preserved in Goth., and even here the 3 person has been supplanted by the 3 plural, as the dual of the verbs was only kept when connected with that of the personal pronoun; of the latter only 1 and 2 persons exist. The dual has entirely disappeared from the passive.

(5) Three persons: but in the Goth. passive, the 3 sing. has replaced the 1 sing., and the 3 plu. the 1 and

2 plu.; the latter has also taken place in O.E. and O.S. in the active. This is due to the fact that the 1 and 2 persons are generally replaced in the child-speech by the 3 person. As the different persons become thoroughly mixed in this way, the 3 person also (though seldom) can be supplanted; in O.N., e.g. the 3 person has been supplanted by the 2 in the sing. pres. indic.

(6) One verbal noun (infinitive) and two verbal adjectives (participles). The infinitive only arose in the separate Ind.-Germ. languages from other words; the participles existed already in Ind.-Germ. itself. In Germ. there are: a present infinitive active, a present participle active and past participle passive. As a preterite passive no longer existed, the past participle could not be connected with it. The participle was combined with auxiliary verbs to form a periphrastic equivalent of the preterite passive, thus in Goth. 'baúrans was' or 'warþ' (he was carried).

In Ind.-Germ. only tense and mood were, as a rule, distinguished by independent suffixes: voice and number were only expressed in the personal endings; this is partly true of tense and mood also.

2. TENSE-FORMATION

A. Present

Only in a few presents, such as *'es-mi' (I am), O.Ind. 'ás-mi,' Gk. ἐ-μι, Goth. 'i-m,' were the personal endings added directly to the root in Ind.-Germ.: the verbs in which this took place are called "athematic." In the great majority of presents an element—the thematic vowel—was added between the root and the personal ending, which distinguished the particular nature of the

action. But, apart from certain classes of verbs, only traces of this special meaning have been preserved in the individual Ind.-Germ. languages.

The presents were variously inflected in Ind.-Germ. according as the present stem ended in the so-called thematic vowel '-e' (ablaut '-o') or in another vowel. In the former case we speak of thematic presents, in the latter of athematic, to which the root-presents also belong. Both the thematic and athematic presents are further arranged into a number of subdivisions. Here only the classes of Ind.-Germ. presents which can still be recognised in Germ. will be treated in separate sections.

(a) *Thematic Presents*

(α) *'e-o-' Class*

Sing.

	Goth.	O.N.	O.E.	O.S.	O.H.G.
1.	baíra (I carry).	ber.	bere.	biru.	biru.
2.	baíris.	berr.	bires.	biris.	biris.
3.	baíriþ.		bireð.	birið.	birit.

Dual

1.	baírōs.				
2.	baírats.				

Plu.

1.	baíram.	berom.	berað.	berað.	beramēs.
2.	baíriþ.	bereð.			beret.
3.	baírand.	bera.			berant.

In Ind.-Germ. only '-e-' was added to the root, which became '-o-' by ablaut in the 1 pers. of all numbers and in the 3 plu. Thus Gk. *φέρε-ις*, Goth. 'baíri-s' (Lat.

'tegi-s'); Gk. *φέρε-ι*,' Goth. 'baíri-þ' (Lat. 'tegi-t'); Gk. *φέρε-τε*, Goth. 'baíri-þ' (Lat. 'tegi-tis'), but Gk. *φέρω*, Lat. 'ferō,' Goth. 'baíra'; Gk. *φέρο-μεν*, Goth. 'baíra-m'; Doric *φέρο-ντι*, Lat. 'feru-nt,' Goth. 'baíra-nd.'

Goth. has introduced 'a' (from 'o') into 2 pers. dual: 'baíra-ts,' but *φέρε-τον*. Likewise Alemanic into the 2 pers. plu.: 'berat.' If the rest of O.H.G. shows 'beret' here, it is to be attributed to a mixing of this 'berat' with *'birit' which we might expect (cf. p. 83); in O.N. 'bereð' the 'e' is a phonological back-formation from 'i,' as in O.E. 'bires,' 'bireð' (Early O.E. still 'biris,' 'birið'). In W.S. this 'e' has penetrated into the 1 pers. sing. also; In. Angl. '-u' is still found for it.

In Ind.-Germ. this class fell into two sub-divisions according as the accent was on the root-syllable or on the thematic vowel. In the former case, as in O.Ind. 'bhárati' (carries), Ind.-Germ. *'bhéreti,' the root-syllable must have had the full grade; in the latter, as in O.Ind. 'tudáti' (pushes), Ind.Germ. *'tudé-ti' from *'teu̯dé-ti,' the vanishing grade.

In most presents in Germ. i.e. in those with a radical 'e' the vanishing grade has been almost completely replaced by the full grade which preponderated already in Ind.-Germ. Connected with this is the fact that, after the perfect-reduplication had for the most part been lost, ablaut became for the linguistic instinct the chief means of distinguishing the tenses. According to the vowel-interchange in the pres., pret. sing., pret. plu. and past part., which varies according to the sounds following the 'e,' verbs with a radical 'e' are, as a rule, arranged in Germ. in five divisions which are known

as the first five ablaut-series. In the root-syllable and also in the full grade-present there may be:

(1) Ind.-Germ. 'ei̯,' whence Germ. 'ī': Gk. στείχειν (mount), Goth. 'steigan,' O.N. 'stíga,' O.E. 'stígan,' O.S., O.H.G. 'stīgan.'

(2) Ind.-Germ. 'eu̯,' whence Goth. 'iu': Gk. γεύεσθαι, from *γευσεσθαι (taste), Goth. 'kiusan' (choose), O.N. 'kiósa,' O.E. 'céosan,' O.S. 'keosan,' O.H.G. 'kiosan.'

(3) Ind.-Germ. 'e' + liq. or nas. + cons: O.Ind. 'vártati' (turns), Lat. 'vertit,' Goth. 'waírþan' (become), O.N. 'verða,' O.E. 'weorðan,' O.S. 'werthan,' O.H.G. 'werdan.'

(4) Ind.-Germ. 'e' + liq. or nas. (no second consonant): Gk. φέρ-ειν (carry), Goth. 'baíran,' O.N. 'bera' O.E., O.S., O.H.G. 'beran.'

(5) Ind.-Germ. 'e' + spirant or stop (no second consonant): Gk. μέδ-εσθαι (consider, measure), Goth. 'mitan' (measure), O.E., O.S. 'metan,' O.H.G. 'mezzan,' O.N. 'meta' (tax, value).

A case of retained vanishing grade in the present of the first series is the Angl. 'riopan' (= reap, 'io' can only come from 'ĭ' through u- and o/a- umlaut), and in that of the third series is O.N. 'holfa' (another form: 'hualfa' = be vaulted) from *'hulfan.' Verbs which are spread throughout all Germ. and originally had a vanishing grade-present show this, as a rule, only in the separate dialects: thus in the fifth series, Goth. 'trudan' (tread), O.N. 'troða,' but O.E., O.S. 'tredan,' O.H.G. 'tretan': the W.Germ. transition was carried through in the proportion 'mat' (measured): 'trad' (trod) = 'metan': 'tredan.'

In the case also of radical 'ē,' the full grade generally preponderates in the pres. in Germ.: thus in Goth. 'lētan' (let), O.N. 'láta,' O.E. 'lǽtan,' O.S. 'lātan,' O.H.G. 'lāzzan.' Here, too, the vanishing grade-present *'takan' (= touch, O.N. 'taka' = take) has been replaced by the full grade 'tēkan' ('laílōt,' let: 'taítōk,' touched = 'lētan': 'tēkan.')

In the case of radical 'a,' the full grade is likewise regularly found in the Germ. present: Lat. 'alere,' Goth., O.E. 'alan' (grow, nourish in O.E.), O.N. 'ala' (nourish).

Likewise with radical 'ō': Att. πλήσσω from *πλάσσω (I strike), Lat. 'plāga' (blow); the vanishing grade to these appears in Gk. πλαγ-ῆναι and Lat. 'pla-n-g-ere' (strike, complain): Goth. *'flōkan' (complain), pret. 'faíflōk,' O.H.G. *'fluohhan' (to be so considered because of 'farfluohhan' = depraved, bad).

In the case of a radical long diphthong a vanishing grade-present must have had 'ū'; thus O.Fris. 'slūta' (shut), M.L.G. 'slūten' from the Ind.-Germ. root *'sklāu,' with the secondary form *'klāu' in Lat. 'clāuis,' Dor. κλαῖς from *κλᾱϝ-ίς (key). As the full grade 'āu' became 'au' in the perf., assimilation with the second ablaut-series took place here: hence also in O.H.G. pres. 'sliozan.' That the 'u' has been preserved in O.Fris. and O.S. is due to the resemblance of the first ablaut-series: 'stīgan': 'staig' = *'slūtan': *'slaut.' If there is on the whole in Germ. a somewhat large number of presents with 'ū' in the second series (e.g. O.E. 'súcan,' 'súgan' = suck, O.N. 'súga,' M.L.G. 'sūgen,' O.H.G. 'sūgan,' cog. with Lat. 'sūgere') most of them have probably taken the place of original full grade-presents from 'eu̯-' stems; this has certainly been

the case with the O.E. 'būgan' (bend), which is represented in Goth. by 'biugan,' O.H.G. 'beogan,' and in Gk. by φεύγω; cf. ἔφυγον, O.Ind. bhugnás (bent).

All other thematic presents, which had a consonant or a consonant-group before the 'e-o' in their stem, possessed, with the exception of most i̯e- presents, the same gradation of the thematic vowel as the pure 'e-' class. The result was that with few exceptions they went over to this class in Germ. So also all the 'te-to' presents. As, e.g. Gk. πλέκ-ω (I plait) shows, the 't' of Lat. 'plectō' belongs to the present suffix (cf. also βλάπ-τω with ε-βλάβ-ην): in Germ., however, it has been drawn into the verbal stem, as the pret. 'flaht,' 'fluhtum' of O.H.G. 'flehtan' proves. 'Flaht,' 'fluhtum,' is to 'warf,' 'wurfum,' as 'flehtan' to 'werfan.'

(β) *'ne-' 'no-' Class*

The 'ne-' 'no-' class has also for the most part gone over to the 'e-o-' class in Germ.: Lat. 'sper-no' (I despise, lit. push away), 'sprē-vi,' O.N. 'sporna' (push, tread), O.E., O.S., O.H.G. 'spurnan,' pret. O.N., O.S., O.H.G. 'sparn,' O.E. 'spearn.'

To the few exceptions belongs Goth. 'fraíhnan' (ask), pret. sing. 'frah,' plu. 'frēhum,' past part. 'fraíhans,' O.N. 'fregna,' 'frá,' 'fŕ̥gom,' 'fregenn.' In W.Germ. the 'n' has been added to the stem: O.E. 'frignan,' 'frægn,' 'frugnon,' 'frugen,' O.S. 'fregnan,' 'gi-fragn,' 'frugnum.'

(γ) *Nasal Infix-Class*

The nasal could in Ind.-Germ. be inserted as an infix in the root and '-é-' ('-ó-') only added as a suffix: Cf. Lat. 'pu-n-g-ō,' 'pu-pug-ī,' Lith. 'ru-n-k-ù' (I become wrinkled), inf. 'rūk-ti.'

In Germ. 'n' has been preserved as a present-infix only in Goth., O.S. 'standan' (stand), O.N. 'standa,' O.E. 'stondan,' of which the prets. are Goth. 'stōþ,' O.N. 'stóð,' O.E., O.S. 'stōd'; the past part. also in O.N. is 'staðenn,' in O.E., on the other hand, 'stonden,' O.S. 'standen,' O.H.G. 'gistantan'; also the pret. in O.H.G. is 'stuont.'

All other verbs with nasal infix have either abandoned this in the present or introduced it throughout into their other forms. But in regard to this the different dialects have often gone along different ways. Thus in O.H.G. a present 'slīhhan' has been formed on the model of 'slaih' (I crept), plu. 'slihhum,' past part. 'gislihhan,' with which O.E. 'slincan' (creep) may be contrasted. But for 'slincan' a pret. sing. 'slonc,' plu. 'sluncon,' past part. 'sluncen,' in analogy with 'bindan,' 'bond,' 'bundon,' 'bunden,' have been created: the word has thus been taken from the first into the third ablaut-series.

(δ) '*ie-*' '*i̯o-*' *Class*

Paradigms: Goth. 'tamja' (I tame), O.N. 'tem'; Goth. 'sōkja' (I seek), O.N. 'søke'; O.E. 'fremme' (I do), O.S. 'fremmiu,' O.H.G. 'frummiu' (I further).

Sing.

	Goth.		O.N.	
1.	tamja.	sōkja.	tem.	søke.
2.	tamjis.	sōkeis.	temr.	søker.
3.	tamjiþ.	sōkeiþ.		

	O.E.	O.S.	O.H.G.
1.	fremme.	fremmiu.	frummiu.
2.	fremes.	fremis.	frumis.
3.	fremeð.	fremið.	frumit.

Plu.

	Goth.		O.N.	
1.	tamjam.	sōkjam.	temiom.	sǫ́kom.
2.	tamjiþ.	sōkeið.	temeð.	sǫ́kað.
3.	tamjand.	sōkjand.	temia.	sǫ́ka.

	O.E.	O.S.	O.H.G.
1.	fremmað.	fremmiad.	frummemēs.
2.			frumet.
3.			frumment.

In Ind.-Germ. there were fixed '$i\underset{\circ}{e}$-' formations, in which only '$i\underset{\circ}{e}$' and '$i\underset{\circ}{o}$' interchanged, and graded formations in which, as in Lat. 'capiō,' 'capis,' the vanishing grade 'i' occurred. As in Ind.-Germ. '$i\underset{\circ}{e}$,' '$i\underset{\circ}{o}$' stood only after a short syllable and 'ie,' 'io' after a long syllable (cf. p. 86), and as the vanishing grade became ī, e.g. Lat. 'farciō,' 'farcīs,' the result was two further subdivisions.

The graded class with a short syllable has penetrated everywhere in W.Germ. Hence, 'i' is here found in the 2 and 3 sing. which, on the evidence of Lat. 'capis,' 'capit,' 'farcīs,' 'farcīt,' were formed with a vanishing grade; Lat. 'capio,' 'capiunt,' 'farciō,' 'farciunt,' on the other hand, correspond to Ind.-Germ. 'io' in the 1 sing. and 3 plu. Hence before 'i' in the 2 and 3 sing. W.Germ. is without the consonant-lengthening which took place before '$i\underset{\circ}{a}$' in the 1 sing. and 3 plu. Unaccented '$i\underset{\circ}{a}$' became 'e' in O.H.G. Cf. Goth. 'sōkjan' (seek), O.S. 'sōkian,' O.H.G. 'suohhen'; hence O.H.G. 'frumment' corresponds to the O.S. 3 plu. 'fremmiað' (from *'-ianð'); the 'e' of 'frumment' has penetrated into the other O.H.G. plu. forms which, on the evi-

dence of Lat. 'capimus,' 'capitis,' 'farcīmus,' 'farcītis,' had the vanishing grade.

In Goth.-Nor. at least short- and long-stem formations are kept separate. In the case of long-stem, fixed verbs, 'ie' passed through 'ii' to 'ī,' since unaccented 'e' is raised in Germ. to 'i.' Thus the long-stem, fixed presents and the long-stem, graded ones fell together not only in the 'iō' of the 1 sing. and 'io' of the 3 plu. but also in the 'ī' of the 2 and 3 sing. and 3 plu. The divergence in the 1 plu. was removed by 'io' of the fixed formations penetrating everywhere. As the 1 and 3 plu. agree in the case of the thematic verbs in showing 'o,' 'i̯o' also made its way through the graded 'i̯o-' presents, even as did 'i̯e' in the 2 and 3 sing. and 2 plu.

By the side of the real 'i̯e-' formations were found in Ind.-Germ. the causatives formed from other verbs by means of '-ei̯e-' (cf. p. 60). Since unaccented 'e' became 'i' in Germ., '-ei̯esi' of the 2 sing. could only produce '-īs' (cf. Goth. 'gasteis,' p. 90) and '-ei̯eti' of the 3 sing. only '-īþ.' As the long-stem causatives and the real long-stem 'i̯e-' formations fell thus together, the short-stem causatives adopted the inflexions of the real short-stem 'i̯e-' formations.

(*b*) *Athematic Presents*

(*a*) '*ā-*' *Class*

Sing.

	Goth.	O.N.	O.E.	O.S.	O.H.G.
1.	Salbō (anoint).	kalla (call).	sealfie.	salƀon.	salbōm.
2.	Salbōs.	kallar.	sealfas.	salƀos.	salbōs.
3.	Salbōþ.	kallar.	seafað.	salƀoð.	salbōt.

	Plu.			
1. Salbōm.	kǫllom.	sealfiað.	salƀoð.	salbōmēs.
2. Salbōþ.	kalleð.			salbōt.
3. Salbōnd.	kalla.			salbōnt.

In Ind.-Germ. the 'ā-' class consisted only to a small extent of primary, i.e. of such verbs as had been directly formed from the root, e.g. O.Ind. 'dr-ā-ti' (runs) from the root *'der'; the class mostly consisted of denominative verbs, as Lat. 'plantā-s' from 'planta' (plant). In the case of the latter an extension could be made in Ind.-Germ. by means of 'i̯e,' 'i̯o'; as Att. τῑμά̄-ω (from *τῑμᾱ-i̯ω) as well as Aeol. τῑ́μᾱ-μι (plu. τῑ́μᾱ-μεν) show.

In Germ. the thematic suffix has been preserved in the pres. indic. only in O.E. and in those cases alone in which the thematic verbs show 'o,' viz. in the 1 sing. and 3 plu. In the forms in which the 'o-' verbs had 'e' in the 2 and 3 sing. and the 'i̯o-' verbs 'i̯e' or 'i,' the athematic forms in consequence of the resemblance became predominant. The primary and the denominative verbs therefore fell together: cf. the primary O.E. 'borie' (I bore, perforate), O.H.G. 'borōm' (Lat. forāre) with O.E. 'sealfie,' O.H.G. 'salbōm' from 'salba' (salve, ointment) = Gk. ὄλπη (oil-flask).

'ō' in Goth. and O.H.G. 3 plu. where it had been shortened before 'n' + cons. was restored in analogy with the other endings.

The O.N. shortening of 'ō' to 'a' throughout the sing. and to 'o' before 'm' in the 1 plu. is later; 'kalleð' has been formed in analogy with 'bereð' because of the resemblance of the other plural forms.

(β) '*nāi̯-*' Class

The '*nāi̯-*' class, whose '*āi̯*' became '*ā*' already in Ind.-Germ., shows '*-nā-*' only in the sing. act., because '*-nāi̯-*' here bore the chief accent, but the vanishing grade '*-nī-*' only in the end-accented forms, i.e. in the dual and plu. act. and throughout the middle: O.Ind. '*mṛnā́mi*' (I crush), 1 plu. '*mṛnīmás*.'

To this class in Germ. belong especially the inchoative intransitive verbs such as Goth. '*gaþaúrsnan*' (become dry), O.N. '*þorna*,' therewith cf. '*þaírsan*' (dry up, wither), O.N. '*þerra*.' The meaning of this class, which marked the starting point of an action, developed from a terminative function, which belonged generally to the nasal-presents in Ind.-Germ., i.e. developed from the fact that these formations could embrace the starting as well as the final point of an action: Gk. *ὀρνύμεν* (we let loose), O.Ind. '*jā-nā́ti*' (he recognises). The verbs may still be clearly recognised as original '*nā-*' presents from the Goth. preterite ending '*-nōda*,' as in '*þaúrsnōda*'; in O.N. they are inflected exactly like the '*ā-*' presents. In the 3 plu. of Goth., as in '*gaþaúrsnand*,' the '*-and*,' which arose from '*-ōnd*,' was preserved and produced by confluence with the '*-and*' of the thematic verbs a complete transition into their inflections: '*gaþaúrsna*,' '*gaþaúrsnis*,' etc. In W.Germ., on the contrary, the '*nā-*' presents in agreement with the '*ā-*' presents assimilated the 3 plu. with the other persons as, e.g. O.H.G. '*hlinōnt*' (they lean, cog. with Lat. '*inclināre*') shows. In O.E. the '*i̯o-*' inflections have partially gone over to these verbs: '*hlinie*,' '*hliniað*.' Thus from an inchoative: '*éacnie*' (I grow), '*éacniað*' (cog. with Goth. '*auka*' = I increase, and O.E. '*éacie*' = I add).

(γ) '*ēi̯*-' *Class*

Sing.

Goth.	O.N.	O.E.
1. haba (I have).	hef, hefe.	hæbbe.
2. habais.	hefr, hefer.	hafas.
3. habaiþ.		hafaþ.

O.S.	O.H.G.
1. hebbiu.	habēm.
2. haƀes, haƀas.	habēs.
3. haƀeð, haƀað.	habēt.

Plu.

Goth.	O.N.	O.E.
1. habam.	hǫfom.	habbað.
2. habaiþ.	hafeð.	
3. haband.	hafa.	

	O.S.	O.H.G.
1.	hebbiat.	habēmēs.
2.	habbiat.	habēt.
3.		habēnt.

In Ind.-Germ. already the '*ēi̯*' of these verbs became '-ē' except before 's.' To this class belong primary verbs mostly, such as Goth. 'haba' (I have), Lat. 'habēre,' Goth. 'ana-sila' (I am silent), Lat. 'silēre.'

The '-and' of Goth. 'haband' comes from '-ēnd' as that of 'gaƀaúrsnand' from '-ōnd,' and in analogy with this inflexion, 'haba,' 'habam' have been formed from 'haband.' The 'ai' of 'habais' goes back to Ind.-Germ. '*ēi̯*' before 's'; as the 3 sing. and 2 plu. have elsewhere always the same vowel as the 2 sing., they have likewise preserved the 'ai.'

O.N. 'hafa' corresponds to the Goth. 'haband' as O.N. 'bera' to Goth. 'berand'; on the model of 'hafa' beside 'bera,' 'hǫfom,' 'hafeð' were formed beside 'berom,' 'bereð.' 'Hef,' 'hefe' seem to be different dialectical variations for P.Germ. *'haƀi̯ō' from *'haƀeō' from *'habēō': 'hefr' and 'hefer' are formed from 'hef' and 'hefe.'

Most probably O.S. 'hebbiu' and O.E. 'hæbbe' go back to this *'haƀi̯ō' (the 'bb' in 'hæbbe' is proof of an earlier presence of 'i̯'); through the resemblance with 'fremmiu' arose in the 3 plu. O.S. 'hebbiat,' O.E. 'habbað.' O.S. 'haƀes,' 'haƀeð' correspond to Goth. 'habais,' 'habaiþ'; in O.E. 'hafas,' 'hafað' (which seem to have been taken over into O.S.) we perhaps see the influence of the 'ā-' class ('sealfie': 'hæbbe' = 'sealfas': 'hafas').

O.H.G. 'habēm,' '-ēmēs' have preserved the Ind.-Germ. 'ē'; O.H.G. 'habēs,' 'habēt,' 'habēt' correspond to the Goth. 'habais,' 'habaiþ,' 'habaiþ'; O.H.G. 'habēnt' for *'habant' is due to analogy (cf. 'salbōnt').

(δ) *Root-Class*

The presents, which in Ind.-Germ. added the personal endings directly to the root, accented the latter only in the sing., the former, on the other hand, in the dual and plu.; hence the sing. appears as a full grade, the dual and plu. as vanishing grades. Thus from the root 'es': O.Ind. 'ás-ti' (is), 's-tás' (both are), 's-ánti' (they are).

The full grade of the verb "to be" is preserved in the sing. in Germ.: Goth. 'im, is, it,' O.N. 'em,' 'es,' 'es,' O.E. 'eom,' 3 sing. 'is,' O.S. 3 sing. 'is,' 'ist,' O.H.G. 'ist.' The vanishing grade is

still seen in the 3 plu. Goth., O.E., O.S., O.H.G. 'sind'; in O.N. 'ero' as in Gk. εἰσί, from *ἐσ-ντι, the full grade has penetrated; likewise into the 1 plu. 'erom,' hence also 2 plu. 'eroð.' Goth. 1 and 2 plu. 'sijum' and 'sijuþ' are due to the influence of the subjunctive forms 'sijaima,' 'sijaiþ.'

B. Preterite

(a) *Strong Preterite*

The thematic verbs, with the exception of the majority of the 'i̯o-' class, formed a strong preterite in Germ.

(α) *Strong Preterites in Prim. Germanic*

The basis of the strong preterite was the Ind-Germ. perfect which was formed by means of reduplication, i.e. by prefixing to the root a syllable made up of the first cons. of the root + 'e,' while the personal endings were added immediately to the root. In the sing. the chief accent lay on the root-syllable, as is seen from the agreement of O.Ind. accentuation, e.g. in 'jajā́na' (has become), with that which may be inferred from grammatical change for P.Germ. (cf. Goth. 'saízlēp' with 'slēpan' = sleep, O.N. 'sera' with 'sá' = sow). The root-syllable had 'o-' grade, as, e.g. Gk. γέγονε = O.Ind. 'jajāna' (whose 'ā' apparently goes back to 'o,' but not to 'e') from the root 'ḡen' shows. The plu. and dual had the accent on the personal ending, and hence had the vanishing grade: O.Ind. 'jajñima' = Gk. γέγαμεν.

Already in Ind.-Germ. a few verbs of the 'e-' series had lost in the dual and plu. the initial consonant of the unaccented root-syllable, through dissimilation with that of the reduplication-syllable. As, in the case of

the complete disappearance of the 'e,' the word could not be pronounced, because of too great an accumulation of consonants, the 'e' became 'ə' in the root-syllable; this 'ə' developed in Aryan into 'i' (cf. p. 33), which contracted with the 'e' of the reduplication-syllable into 'ei̯' and later in O.Ind. produced 'ē,' while in Lat. and Germ. 'e'+'ə' directly became 'ē': hence O.Ind. 'sēdimá' (we have sat), Lat. 'sēdimus,' Goth. 'sētum.' In Germ. this formation, apparently without reduplication, was carried out in all verbs in which the radical 'e' was followed by a single consonant only.

If the root-syllable bore the chief accent in Ind.-Germ. it retained its initial consonant: O.Ind. 'sasā́da' (has sat) from Ind.-Germ. *'sesóda.' While the Lat. 'sēdī' however has been remodelled on the analogy of 'sēdimus,' Goth. 'sat' still shows the vowel of *'sesóda,' though with the loss of reduplication. As, on the analogy of 'sētum,' only *'sēt' could have arisen, especially as in Goth. 'ēt,' 'ētum' = O.N. 'āt,' 'ātom,' etc. = Lat. 'ēdi,' 'ēdimus,' Gk. *ἔδ-ηδα, ἐδ-ήδαμεν*, there was a model for 'ē,' 'sat' therefore along with all perfects similarly formed, must have had a different source. Here, when the chief accent was still on the root, took place what is called haplology, by which a syllable not bearing chief stress may be dropped, when the one following it begins with the same consonant as it does: e.g. O.H.G. 'swibogo' (arch-way) from *'swibibogo' (lit. suspended arch). That initial syllables can be lost in this way is also shown by the Mod. Gk. *δάσκαλος* from O.Gk. *διδάσκαλος*, Provençal 'paver'[1] from Lat. 'papāver,' Ital.

[1] 'paver' is not known to exist; v. Levy, Provenzal: Supplement-Wörterbuch: 24 Heft (1909).

'vaccio' (hasty) from Lat. *'vivācius.' Such haplology has regularly taken place in Mod. Gk. perf. part. pass. (the only one left from the O.Gk. perf.), e.g. *βλαμμένος* from *βεβλαμμένος*, *μαθημένος* from *μεμαθημένος*.

In Germ. haplology has taken place in all verbs with a radical 'e,' and indeed everywhere in the dual and plu. where these, unlike Goth. 'sētum,' no longer showed syllable-repetition. After the dual and plu. in the three first ablaut-series (cf. p. 131) had thus lost their reduplication, they no longer differed in their parts before the endings from the past part. which likewise had a vanishing grade. But in the fourth and fifth series a difference arose from the fact that the forms with 'ē' had not penetrated into these. We thus have in Goth. the following scheme:

Pres.	Sing. Pret.	Plu. Pret.	Past. Part.
1. steiga (mount).	staig.	stigum.	stigans.
2. biuda (bid).	bauþ.	budum.	budans.
3a. binda (bind).	band.	bundum.	bundans.
3b. waírþa (become).	warþ.	waúrþum.	waúrþans.
4a. nima (take).	nam.	nēmum.	numans.
4b. baíra (bear).	bar.	bērum.	baúrans.
5. lisa (choose).	las.	lēsum.	lisans.

As the older forms continued in the first instance to exist by the side of those which arose through haplology, they could also under certain circumstances supplant the latter. This has happened in Germ. in the case of the verbs with radical 'a' followed by either 'i' or 'u' or $\left\{\begin{matrix}\text{nasal}\\\text{liquid}\end{matrix}\right\}$ + cons., thus in the three subdivisions which are parallel to the first three ablaut-series. The reason

of this is that the same vowel, viz. 'a,' stood in the pres. as well as in the sing. pret. and ablaut could not here be distinguished as a mark of tense. The further result was that ablaut was abolished in the plu. pret. also. Hence we have in Goth. the scheme:

Pres.	Sing. Pret.	Plu. Pret.	Past. Part.
1. haita (call).	haíhait.	haíhaitum.	haitans.
2. auka (increase).	aíauk.	aíaukum.	aukans.
3. halda (hold).	haíhald.	haíhaldum.	haldans.

Forms with vanishing grade are also sporadically preserved in the plu. pret. of this class; in these, as in O.N. 'hlupom' (we ran), the form without reduplication was preferred, because ablaut was sufficient to distinguish the tense.

In the subdivisions in which a single consonant followed the 'a,' the resemblance with the 'e-' series in the plu. pret. had already at an earlier period produced unreduplicated forms with 'ā,' i.e. in analogy with the relation of P.Germ. *'nemō' (I take) to *'nēmumen' (we took), *'fārumen' (we lead), whence 'fōrum,' arose in analogy with *'farō' (I travel). As there were several verbs with an initial vowel in this class, which formed their whole perfect from the remotest times by lengthening 'a' instead of by reduplication, e.g. Gk. $\tilde{\eta}\chi\alpha$ from $*\tilde{\alpha}\chi\alpha$ perf. of $\check{\alpha}\gamma\omega$ = O.N. 'ók' from *'āka' pret. of 'aka' (drive), so was 'ā' (later 'ō') introduced also into the sing. in the case of the verbs with an initial consonant. In the past part. of these verbs 'a' is found before all sounds through the suppression by analogy of old differences. Thus two more of the 4 and 5 ablaut series appear as similar, but they appear

as mutually similar sub-series of the 'a-' series; these are in Goth.

	Pres.	Sing. Pret.	Plu. Pret.	Past. Part.
4.	fara (travel).	fōr.	fōrum.	farans.
5.	skaba (shave).	skōf.	skōbum.	skabans.

As these series made the impression of an old ablaut, they have been added as a sixth to the five ablaut-series which constituted the old 'e-' series.

In the 'ē-' series loss of reduplication should really be expected, as the "ablauting" 'ō' sufficiently distinguished the sing. pret. Forms like 'lōt' (let, pret.), cog. with Goth. 'lēta' (I let, pres.) are only found in East Nor. Goth. has here preserved reduplication, and the forms of the other Germ. languages are explained on the assumption of its retention in a similar manner. The reason why reduplication has been preserved here is apparently the influence of the cognate 'ā-' series, in which the Germ. 'ō' necessarily appeared in the pres. and sing. pret. The 'ō' of the sing. pret. has penetrated in both series into the plu. also; the 'ē' or 'ō' of the pres. into the past part. Thus we have in Goth.:

Pres.	Sing. Pret.	Plu. Pret.	Past Pret.
lēta (let).	lailōt.	laílōtum.	lētans.
ƕōpa (boast).	ƕaíƕōp.	ƕaíƕōpum.	ƕōpans.

(β) *The Strong Preterites in Nor. and W.Germ.*

The preterites which had lost their reduplication in P.Germ. were generally as little affected in Nor. and W.Germ. as in Goth. by other changes than those usually occurring according to operating sound-laws. Hence we have:

	O.N.	O.E.	O.S.	O.H.G.
1.	steig, stigom.	stág, stigon.	stēg, stigun.	steig, stigum.
2.	bauð, buðom.	béad, budon.	bōd, budun.	bōt, butum.
3.	varð, vurðom.	wearð, wurdon.	warth, wurdun.	ward, wurtum.
4.	bar, bǫ́rom.	bær, bǽron.	bar, bārun.	bar, bārum.
5.	las, lǫ́som.	læs, lǽson.	las, lāsun.	las, lārum.
6.	fór, fórom.	fór, fóron.	fōr, fōrun.	fuor, fuorum.

On the other hand, the preterites which still reduplicated in P.Germ. underwent a thorough remodelling in Nor. and W.Germ. First, 'ē' was introduced into the pret. of the verbs of the 'ē-' series, which had a root ending in a consonant, when *'lelēt,' e.g. was formed for *'lelōt' in analogy with 'slēpan' (sleep) whose pret., on the evidence of Goth. 'saízlēp,' 'saíslēp,' had already in P.Germ. adopted the 'ē' of the pres. Further, after the chief accent was moved back to the initial syllable, unaccented 'ai' became 'ē' (e.g. *'héhait' > *'héhēt'), 'au' became 'ō' (e.g. *'éauk' > *'éōk'). But in all verbs which had an initial single cons. this was dropped in the root-syllable by dissimilation with the initial cons. of the whole word, so that, e.g. *'léēt' arose from *'lélēt,' *'héōw' from *'héhōw' (I hewed). Similar cases of dissimilation are Gk. *ἀγήοχα* from **ἀγήγοχα*, *λελίημαι* from **λελίλημαι*, Armen. 'orkor' (throat) from *'kor-kor,' Mod.Bg. 'agnea-ta' (lambs) from O.Bg.

'agneta-ta'; in O.Ir. the cons. of the reduplicated syllable regularly disappeared in this way, if a preposition before the particle 'ro' preceded it; cf. e.g. 'ro reblang' (I sprang) with 'fo-roiblang.' As contraction followed in the last case of dissimilation, so also in Nor. and W.Germ. 'é+ē' as well as 'é+a' were contracted into 'ē²,' and 'é+ō' into 'eo'; the same contraction naturally took place in the verbs with an initial vowel. Before double consonants, i.e. where 'ē²' had arisen from 'e+a,' it was generally shortened to 'e.' Hence the following correspond:

Goth.	O.N.	O.E.	O.S.	O.H.G.
haíhait (called).	hét.	hét.	hiet.	hiaz, hiez.
laílót (let, pret.).	lét.	lét.	lēt, liet.	lēz, leaz, liaz
*faífang (caught).	fekk.	feng.	feng.	fenc, fiang.
*haíhau (hewed).	hió.	héow.	heu.	hio, hiu.
*waíwōp (cried).		wéop.	wiop, wiep.	wiof, wiuf.
saísō (sowed).	sera.[1]	séow.	seu.	

In O.E. 'e' before 'l,' as in 'meolcan' (milk) = O.H.G. 'melkan,' became 'eo': hence 'weolc' (faded) from *'welc' (like 'feng'), pret. of 'wealcan' from *'walcan.' As 'a' before 'l'+cons. (by way of 'æ') was generally broken into 'ea,' e.g. 'healdan' (hold) = Goth. 'haldan,' so in all verbs in 'al'+cons. 'eo' was introduced into the pret., e.g. 'heold' from 'healdan.' That several verbs here modelled themselves on a single rare verb was due to the fact that thus an analogy with the verbs which had 'éa' (from Germ. 'au') in the present was formed: 'héawan': 'héow' = 'healdan': 'heold.' The 'o' in O.E. 'gongan' (go), Goth. 'gangan,'

[1] 'sera' is from *'sezo' (v.p. 14) whose 2 different 's-' sounds could not be dissimilated.

'bonnan' (summon), O.H.G. 'bannan,' into which 'a' had changed before 'n'+cons. was introduced into the pret.: hence 'geong' for 'geng,' 'beonn' for *'benn.'

The verbs which had double consonants initially were treated after the manner of those with an initial single consonant or an initial vowel: hence, e.g. from O.H.G. 'blāsan' (blow), 'blias' (in analogy with 'lāzan'=let), from 'hlaufan,' 'loufan' (run), 'liof,' 'liuf' (in analogy with 'houwan'=hew).

Dissimilation took place before vowels only. Hence there are reduplicated forms still preserved in Anglian in the 'ē-' series in which the vanishing grade had persisted in the plu. with complete loss of vowels: 'reordon' (advised, pret. of 'rǣdan') from *'re-rd-un,' whence also sing. 'reord.' On account of the Anglian levelling of the singular of the 'ē-' and 'ai-' series (cf. W.S. 'réd' and 'hét'), plural forms were formed in the latter without any root-vowel, e.g. 'hehton' (for *'hehitun') whence singulars like 'heht.'

(b) *Weak Preterite*

The athematic verbs in Germ., as well as the great majority of verbs in the 'i̯o-' class, had a weak preterite. This was formed by means of a periphrasis with a preterite form of the Ind.-Germ. root 'dhē' (set, do); in fact, with that which is still found in O.E. 'dyde' (did), O.S. 'deda,' O.H.G. 'teta,' as is shown by the agreement between the Goth. plu. endings, e.g. in 'salbōdēdum' (we anointed) and O.S. 'dēdun,' 'dādun' (did), O.H.G. 'tātum.' O.E. 'dyde,' etc., probably corresponds to O.Ind. reduplicated aorist 'ádadhām,' whose augment

'a-' (Gk. ἐ-) could exist also as a really independent word.

This manner of formation was adopted because most verbs of the 'i̯o-' and 'ā-' classes had first been derived from nouns or other verbs; the derived verbs, however, had originally only a present. When the need of a past tense was felt, periphrasis by means of an auxiliary verb was resorted to. An auxiliary verb can really be added only to a verbal noun, which in our case (as in French 'j'aimerai,' "I shall love," really 'j'aimer ai,' "I have to love") could only be an infinitive (we anointed = we did anoint). But as there was yet no infinitive in Ind.-Germ. that part of the verb was used for it which regularly occurred in all the present forms, and hence was regarded as a stem. This also happened later in the Ind.-Germ. languages in the case of periphrastic tenses formed at an early period, e.g. in Lat. 'amā-bam,' 'amā-bō.' The forms in '-i' appeared thus as stems in the 'i̯o-' presents, those in '-ā' in the 'ā-' presents: Goth. 'sōki-dēdum' (we sought), 'salbō-dēdum' (we anointed). As the causatives ran with the pure 'i̯o-' stems and the inchoatives with the 'ā-' stems, the former likewise formed their pret. with '-i-,' and the latter with '-ā-' (whence 'ō'): Goth. 'nasi-dēdum' (we saved), 'fullnō-dēdum' (we became full).

In analogy with the weak pret. of derived verbs, is also formed that of the primary verbs of the 'ā-' class. Further, all or the great majority of the primary verbs of the 'ēi̯-' class also formed their pret. in this way, because of the greater similarity of their present inflexions to those of the 'ā-' class than to those of the 'o-' class. In verbs which come under this head, such as O.E. 'hæfde' (had), O.S. 'habda,' the pure root is

the stem. Clearly these verbs took their place in the '$\bar{a}$-' class only when they had shortened '$\bar{e}$' before '$\underset{\circ}{i}$' and 'n' + cons. to 'a,' consequently only the pure root recurred uniformly in all the present forms. '$\bar{e}$' in O.H.G., in which it had been established anew throughout the pres., again penetrated into the pret.: 'habēta.' In Goth. 'habaida' was formed in an approximate analogy with 'habais,' 'habaiþ' as 'nasida' with 'nasjis,' 'nasjiþ' and 'sōkida' with 'sōkeis,' 'sōkeiþ.'

In the P.Germ. sing. in *'-ðeðō^{n},' etc., the short reduplicated syllable was dropped through haplology, while in the dual and plu. the long in *'ðeðume^{n},' etc., persisted, as is seen in Goth. in, e.g. 'salbōda,' 'salbōdēdum.' After the 'þ' from Ind.-Germ. 't' (cf. O.Ind. 'sthi-tás,' Gk. στα-τός, Lat. 'status') had become 'ð' after a vowel in the past part. pass. according to Verner's Law, and had thus fallen with the 'ð' from the Ind.-Germ. 'dh' of the weak pret., the two 'ð's' were associated by the linguistic instinct. The 'ð' was now introduced into the '$\bar{e}\underset{\circ}{i}$-' class in which Germ. 'ð' from Ind.-Germ. 't' could never arise after a cons. in the part.: hence, e.g. O.E. 'gehæfd,' O.S. 'behabd.' On the other hand, the small number of the 'tó-' participles which as well as the '$\underset{\circ}{i}$o-' presents had been formed directly from the root and whose 't' after a cons. had been retained in Germ., supplied the model for the pret. forms: hence, e.g. beside Goth. 'waúrhts' (worked) from 'waúrkja' we have 'waúrhta,' 'waúrhtēdum.' After Goth. had separated from Nor. and W.Germ. the two latter, in a not mathematically exact proportion created on the model of the simple *'ðeðō^{n},' *'ðēðume^{n}' a form *'naziðume^{n}' (O.E. 'neredon,' O.S. 'neridun,' O.H.G. 'nėritum') to 'nazidō^{n}' (O.E. 'nerede,' O.S.

'nerida,' O.H.G. 'nĕrita'), *'worhtume^{n}' (O.N. 'ortom,' O.E. 'worhton,' O.H.G. 'worhtum'), *'warhtume^{n}' (O.S. 'warhtun') to *'worhtō^{n}' (O.N.' orta,' O.E. 'worhte,' O.H.G. 'worhta'), and *'warhtō^{n}' (O.S. 'warhta'): a concurrent influence here was apparently the dislike to long endings, which alone in French produced 'nous aimerons' for *'nous aimer-avons.' But in Crim.-Goth., on the other hand, *'wartheða' (whence 'warthata') was formed for *'warthēðum' on the analogy of *'ðeða' for *'ðēðum.'

The vowels of the final syllable of the weak pret. are most clearly kept apart in Nor. In O.N. the sing. e.g. is: 1 'orta,' 2 'orter,' 3 'orte': to the '-a' corresponds Prim. O.N. '-o' in 'worahto,' to the '-e' Prim. O.N. '-e' in 'wurte.' In the other dialects, the 1 and 3 sing. have the same vowel; in O.E. 'worhte' there is phonological fusion of two sounds: (α) in 1 sing. '-ō^{n}' has become '-e' as in 'tunge' (tongue) and (β) in 3 sing. '-ēt' has become '-e,' while the Goth. 1 sing. 'waúrhta' has taken the form of the 3 sing., and the form of the O.S. and O.H.G. 3 sing., O.S. 'warhta,' O.H.G. 'worhta' that of the 1 sing. To the O.N. 'orter' (from '-ēz') corresponds Goth. 'waúrhtēs,' also O.E. 'worhtes' in the vowel, while 'warhtos' predominates in O.S. and 'worhtōs' in O.H.G. In the plu. vanishing grade is found everywhere: Goth. 'waúrhtēdum,' '-uþ,' '-un'; O.N. 'ortom,' '-oð,' '-o'; O.E. 'worhton,' O.S. 'warhtun,' O.H.G. 'worhtum,' '-ut,' '-un.' Only Alem. has 'ō' here: 'worhtōm,' '-ōt,' '-ōn.'

(c) *Preterite-Presents*

There were already in Ind.-Germ. so-called preterite-presents, i.e. perfects which had assumed present meaning; thus *'u̯oi̯da' (I know, lit. I have seen) cog. with Lat 'videō,' Gk. εἶδον from *ἔ-Ϝιδον, and preserved in O.Ind. 'vḗda,' Gk. Ϝοῖδα, οἶδα, Goth. 'wait,' O.N. 'veit,' O.E. 'wát,' O.S. 'wēt,' O.H.G. 'weiz.' Apart from the fact that *'u̯oi̯da' had no reduplication, its inflexions and stem-gradation were entirely those of a perfect: O.Ind. 'vidmá' (we know), Gk. ἴδμεν, Goth. 'witum,' O.N. 'vitom,' O.E. 'witon,' O.S. 'witun,' O.H.G. 'wizzum.' On the other hand, reduplication also existed in Ind.-Germ., e.g. Gk. μέμονα (I remember), Lat. 'meminī,' but it was lost in these words in Germ. through the same haplology as in the perf. with preteritive meaning: Goth., O.N., O.E., O.S. 'man.' As is shown in the plu. of the word in Germ., Goth. 'munum,' O.N. 'munom,' O.E. 'munon,' O.S. 'munun,' the pret.-presents have avoided the analogy of introducing 'ē' before a single cons. in the perf. plu. because of their variant meaning.

The same loss of syllables is also to be assumed for the pret.-presents which are distributed among all the six ablaut-series: thus in Goth. to the first belongs 'wait,' 'witum,' to the second, 'daug' (it is good for), to the third, 'kann' (I know) 'kunnum,' to the fourth, 'skal' (I shall, owe) 'skulum,' to the fifth, 'mag' (I can) 'magum,' to the sixth, 'ga-mōt' (I find room) *'ga-mōtum.' In this there is agreement in the other dialects which possess forms which are wanting in Goth. such as O.H.G. 'toug,' plu. 'tugun,' O.E. 'geneah,' plu. 'genugon.'

Being formally strong preterites, the pret.-presents could only form weak prets. In their case also levelling

with the 'tó-' participles took place everywhere. Thus 'wait' had an original 'tó-' part. which, however, was handed down and lived on as an adj.: O.N. 'viss' (certain, lit. seen), O.E. 'gewiss,' O.H.G. 'gewis' (cf. p. 10); in analogy with this Goth., O.S., O.H.G. 'wissa' (knew), O.N. 'vissa,' O.E. 'wisse' were formed. Thus also in Goth. 'kunþa' and the original past part. 'kunþs' (known) on the one hand stand side by side, and on the other 'munda' (I thought) and 'munds.'

(d) *An Aorist Form in the Strong Preterite*

In the 2 sing. indic. of the strong pret. W.Germ. replaced the perfect form by one of the true aorist. It therefore came about that '-tha' of the 2 sing. perf. indic. had very often changed the preceding root-consonant, so that this form fell out of the perfect system (cf. Goth. 'baust' "thou didst bid," from 'biudan,' 'qast,' "thou didst say," from 'qiþan'), while in the true aorist here as in the other perfect forms the unchanged root-consonant was followed by a vowel: Gk. ἔλιπες, ἔφυγες. Proof of the fact that there is here a genuine aorist form is furnished by the pret.-presents which have preserved the form in '-t' (O.E. 'wást,' "thou knowest," O.S. 'wēst,' O.H.G. 'weist' as well as Goth. 'waist,' O.N. 'veist'): the pres. meaning prevented an aorist form from penetrating here. The aor. had no augment in Germ. as sometimes was the case in O.Ind. and Gk. (cf. Homer. φύγον with ἔφυγον) and its root-form agreed, as vanishing grade in the first three ablaut-series, with the plu. indic. and the whole perf. opt.; in fact, the adoption of one of its forms by the perf. only took place after the perf., through the disappearance of re-

duplication, drew nearer to it in sound. The 2 sing. of the aor., in which the thematic vowel '-e-' was followed by an '-s' as a personal ending (cf. Gk. φύγες), changed this '-s' in Germ. into '-z' which disappeared after unaccented 'e' had become 'i' finally. Thus are to be explained O.H.G. 'stigi' (didst mount), 'bugi' (didst bend), 'bundi' (didst bind), O.E. 'stige,' 'buge,' 'bunde.' As these forms agreed in the vowels of the root-syllable with the plu. indic. and the whole perf. opt., a new 2 sing. indic. was formed, in the 4, 5 and 6 ablaut-series whose plu. indic. and whole perf. opt. had long vowels, by adding '-i' to the root-forms containing these vowels: O.S., O.H.G. 'bāri' (didst carry); O.S. 'lāsi' (didst read), O.H.G. 'lāri'; O.S., O.H.G. 'fōri' (didst go); O.E. 'bǽre,' 'lǽse,' 'fóre.' Finally the '-i' made its way through the P.Germ. reduplicated perfects: O.S. 'hēti' (didst call), O.H.G. 'hiazi,' O.E. 'héte.' All these forms were created for the first time, or created anew after the W.Germ. '-i' had disappeared after a long syllable.

3. *The Moods, the Participles, and the Infinitive*

Of the Ind.-Germ. moods the indic. possessed no special distinguishing mark, the imperative only in certain forms. The subjunctive was only distinguished from the indic. by the nature of its personal endings; but besides this there was a true subj. such as is still found in Gk. φέρωμεν, φέρητε, Lat. 'ferāmus,' 'ferātis.' The Ind.-Germ. opt. was always distinguished by '-i̯ē-,' vanishing grade '-ī-,' which stood before the personal ending.

As the subj. and opt. were near to each other in meaning — the former denoted mainly willing, the

latter either a desire or a mild assertion—they have been fused in Germ. (as in Lat.) into one mood. As in the case of most verbs the Ind.-Germ. opt. is the basis of the Germ. mixed mood, this is generally called optative.

A. Optative

(a) *Opt. Pres.*

In the pres. opt. of the thematic verbs, the thematic vowel appeared in Ind.-Germ. throughout as 'o,' the opt. suffix as a vanishing grade 'ī,' whence by contraction 'oī' resulted: Gk. *φεύγοις, φεύγοι.* This '-oī-' became '-aī-' in Germ. and is so preserved in Goth., but in Nor. and W.Germ. in an unaccented syllable it went further into 'ē,' and sometimes this was shortened to '-e-': Goth. 'baírais' (thou mayest carry), O.N. 'berer,' O.E. 'bere,' O.S. 'beres,' O.H.G. 'berēs.' An exception is shown only in Goth.-Nor. where 1 sing. has an unexplained '-au' (whence Nor. '-a') instead of the '-ai': Goth. 'baírau,' O.N. 'bera,' but O.E., O.S., O.H.G. 'bere.'

In the 'ēi̯-' verbs, the opt. '-ī-' was added to the shortened stem in '-ē'; in the 'nāi̯-' verbs similarly to the stem in '-nā.' As 'ēī' and 'āī' (the latter through 'ōī') must become 'aī' in Germ., the opts. of the 'ēi-' class always agree, also those of the 'āi-' class in Goth.-Nor. with the opts. of the thematic verbs: Goth. 'habais,' 'waknais,' O.N. 'hafer,' 'vakner,' O.E. 'hæbbe,' O.S. 'hebbies,' O.H.G. 'habēs.' The 1 sing. here also is formed in Goth.-Nor. in '-au': Goth. 'habau,' 'waknau,' O.N. 'hafa,' 'vakna.'

In the 'ā-' verbs which the 'nāi̯-' verbs have joined in

W.Germ., the Ind.-Germ. 'ā'+'ī' would have, through 'āĭ' and 'ōĭ,' to produce 'ai' in Germ. But the mark-vowel of this class, 'ō,' which had penetrated everywhere else, was absent from these forms. As the opt. had now taken over the subjunctive function, and as the subj., however, cannot have disappeared at one stroke, they were for a period used side by side in certain applications: but the result of this could only be that where the subj. fitted into the verbal system better than the opt. the former and not the latter became predominant: hence Goth., O.H.G. 'salbōs' (thou mayest anoint), O.S. 'salbos.' Goth. has here in the 1 sing. not '-au' but '-ō,' e.g. 'salbō' = O.S. 'salbo,' O.H.G. 'salbo,' while the 1 and 3 plu. ('salbōma,' 'salbōna') are distinguished by the special Goth. opt. endings '-ma,' '-na.' This form in '-ō' is probably to be regarded as indic. just as O.Ind. 'prā́-s' (thou mayest fill) is related to 'á-prā-t' (he filled).

As the 'ā-' class had lost its uniform mark-vowel in O.N., a stricter division of moods was enforced: in analogy with the relation of the plu. indic. 'berom,' 'bereð,' 'bera' to the plu. indic. 'kallom,' 'kalleð,' 'kalla' a plu. opt. 'kallem,' 'kalleð,' 'kalle' was formed to correspond to the plu. opt. 'berem,' 'bereð,' 'bere,' as well as a sing. 'kalla,' 'kaller,' 'kalle' in analogy with 'bera,' 'berer,' 'bere.' But in O. Upper G. the 'e' which had become a general mark of the opt. was added to the mark-vowel 'ō': 'salbōe,' and in Alem. especially, it was added to 'ē' of the 'ēi̯-' verbs: 'habēe.'

In the 'ā-' class in O.E. this has been transferred from the indic. forms with '-i̯o-' to the opt.: *'sealfoie,' *'sealfoien,' whence 'sealfie,' 'sealfien.' The O.E. endings have gone over into O.S. also (cf. p. 21 ff.), in which

'salþoie,' 'salþoien' are found with 'salþo,' 'salþon.' In the root-class in Ind.-Germ. the opt. suffix must have been accented in the sing. and the personal ending in the plu., since the former had 'i̯ē' and the latter 'ī': O.Lat. 'siēs' (thou mayest be), but 'sīmus' (we may be). In Germ. the vanishing grade of the opt. suffix made its way into the sing.: hence O.E., O.S., O.H.G. 'sī' (I may be) in analogy with 'sīn' (we may be). In Goth. the inflexions which are only found in the pres. opt. were transferred to the thematic class by adding their endings to the opt. stem 'sī-,' whereby the 'ī' was resolved into 'i̯i' before a vowel: 'sijau,' 'sijais,' etc.

(b) *Pret. Opt.*

The Ind.-Germ. perf. opt. had in the sing. '-ié-,' in the dual and plu. in which the accent was on the personal ending, '-ī-' as a mark of mood; the root-form was a vanishing grade. The '-ī-' penetrated into the sing. in Germ.: Goth. 'bundeis' (thou mightest bind), O.N. 'bynder,' O.E. 'bunde,' O.S. 'bundis,' O.H.G. 'bundis' and Goth. 'bundeima' (we might bind), O.N. 'byndem,' O.E. 'bunden,' O.S. 'bundin,' O.H.G. 'buntīm.' The Goth.-Nor. '-au' was taken over from 1 sing. pres. by the 1 sing. of this tense, but in such a way that the opt. 'ī' was preserved as 'i̯' before it: cf. Goth. 'bundjau,' O.N. 'bynda' with O.E. 'bunde,' O.S. 'bundi,' O.H.G. 'bunti.'

As the opt. shared the vanishing grade of the root with the plu. indic. it passed through all the changes of the latter: hence, e.g. Goth. 'bērjau,' 'bēreima,' like 'bērum' and likewise in the weak verbs also: Goth. 'salbōdēdjau,' 'salbōdēdeima' like 'salbōdēdum,' O.H.G. 'salbōti,' 'salbōtīm' like 'salbōtum.'

B. Imperative

The Ind.-Germ. imper. was composed of different forms.

(1) The pure stem acted as 2 sing. in the thematic verbs, e.g. in O.Ind. 'bhára,' Gk. φέρε, Lat. 'lege,' and also in the athematic verbs, e.g. in Gk. ἴστη, Lat. 'ī,' 'plantā,' 'habē.'

In Germ. an immediately final 'e' was dropped, before the unaccented 'e' became 'i,' for as such it would have had to be retained in W.Germ. after a short syllable; hence the change of the radical 'e' to 'i' is not found in the imper. of the thematic verbs in Nor. and W.Germ.: Goth. 'baír,' O.N., O.E., O.S. 'ber'; O.H.G. 'bir' is due to 'biris' (thou dost carry).

In the short-stem '$\underset{\cup}{\text{io}}$-' verbs O.E. has '-e,' e.g. in 'freme'; in the long-stem verbs it has no ending, e.g. in 'séc' (seek): thus there was here in W.Germ. a final '-i,' the vanishing grade of '$\underset{\cup}{\text{ie}}$' as in 'fremes,' 'fremeð' (cf. p. 134 f.); in O.S. and O.H.G. '-i' has been everywhere introduced here: O.S. 'fremi,' 'sōki,' O.H.G. 'frumi,' 'suohhi.' In O.N. the form without an ending has been generally adopted: 'tem,' 'sǿk.' In Goth. '-ei' has become general, which apparently can only have arisen through '-$\underset{\cup}{\text{iie}}$' from '-$\underset{\cup}{\text{eie}}$' of the causatives.

The athematic verbs in Germ. agree with the rest of Ind.-Germ.: thus Goth. 'salbō' with 'ō' restored by analogy.

(2) For the 2 dual and 1 and 2 plu. Ind.-Germ. employed indic. forms: hence the imper. in Germ. is here like the indic. In Early O.E. the 1 plu. which was replaced in the indic. by the 3 plu. is retained in its old form: 'beran' (let us carry) as well as 'berað.'

(3) The 3 sing. and plu. could also be formed in Ind.-Germ. by adding '-au,' vanishing grade '-u,' to the indic. forms. The '-u' is preserved in the O.Ind. active forms ('bháratu,' 'bhárantu') the '-au' in a few Goth. active forms which, however, seem to have arisen from middle forms, for the middle endings in '-ai' correspond to the act. personal endings in '-i' in the pres. indic. Thus in Goth. 'atsteigadau' (he is to descend), 'liugandau' (he is to marry).

C. Participles

(a) *Pres. Part. Act.*

In Ind.-Germ. the pres. part. act. was formed in '-nt-,' which was added to '-o-' in thematic verbs: Gk. *φέρων*, *φέρο-ντ-ος*. To this correspond Goth. 'bairands,' O.N. 'berande,' O.E. 'berende,' O.S. 'berandi,' O.H.G. 'beranti.' In the '-ā-' stems there arose in Ind.-Germ. '-ānt-,' whence Germ. '-ōnd-,' later '-and': O.N. 'kallande.' The '-ō' is restored in Goth. 'salbōnds,' O.S., 'salbondi,' and O.H.G. 'salbōnti'; in O.E. the '-i̯o-' form 'sealfiende' stands here. In the case of the inchoatives Goth. has preserved '-a': 'waknands.' In the '-ēi̯-' class Ind.-Germ. '-ēnt-' has become '-and-' in Germ.: Goth. 'habands,' O.N. 'hafandi.' In O.E. 'hæbbende' the consonant-lengthening points to the '-i̯o-' suffix of the 1 sing. pres. indic.; O.S. 'libbiandi' (living) from the same class is to be likewise explained. In O.H.G. 'habēnti' the '-ē' has been restored by analogy: on the other hand, 'fīant' (enemy, lit. the hating one) has preserved the phonological form, because it was no longer felt to be a form from 'fīēn' (hate).

The Ind.-Germ. pres. part. formed its fem. in '-i̯ē' vanishing grade '-ī': O.Ind. nom. sing. masc. 'bhárаn,' (acc. 'bhárantam'), fem. 'bhárantī.' In Goth. '-ī' was enlarged to '-īn,' and in accordance with that a weak masc. and fem. formed: Goth. masc. 'baíranda,' fem. 'baírandei,' neut. 'baírandō' (in the nom. sing. masc. there is still a form 'baírands' also, cf. 'fijands,' enemy), O.N. 'berande,' 'berande,' 'beranda.' In W.Germ. '-i̯ā' took the place of '-i̯ē' (cf. p. 88), whereby masc. and fem. adopted '-i̯o': O.E. 'berende,' 'berendu,' 'berende,' O.S. 'berandi,' 'berandi,' 'berandi' O.H.G. 'berantēr,' 'berantiu,' 'berantaz' (uninflected form 'beranti').

(b) *Past Part. Pass.*

Germ. inherited from Ind.-Germ. two different endings for the past part. pass.: '-onó-' ('-éno-') and '-tó-.' The former is found in O.Ind., e.g. in 'vavr̥tānás' (twisted) as well as in O.Bg. 'nesenŭ' (carried); the latter in O.Ind., Gk., Lat.: O.Ind. 'syūtás' (sewed), Gk. *ἀγαπητός*, Lat. 'amātus.' After Ind.-Germ. '-tó-' had become '-ðó-' in Germ., it was associated with the 'ð' of the weak pret. in such a way that parts. in '-ðó-' were only formed for weak prets. and parts. in '-onó-' only for strong prets. That strong verbs also originally had parts. in '-tó-' is shown by forms separated from the verbal system, such as the Goth. adverb 'un-sahta-ba' (uncontested) from 'sakan' (strive, contest).

Strong verbs have '-éno' only in Nor. (Prim. O.Nor. 'haitinaR' = called, O.N. 'heitenn') and O.E. ('háten'), elsewhere "ablauting" '-onó-' (Goth. 'haitans,' O.S. 'gihētan,' O.H.G. 'giheizzan').

The root-syllable of the parts. in '-onó' had a vanish-

ing grade in Ind.-Germ. as O.Ind. 'vavr̥tānás' shows, in which, however, there was apparently reduplication originally. When a short vowel stood between a spirant and a stop, it could not wholly disappear but had to become 'ə' (cf. the origin of the Goth. 'sētum,' p. 142). After the root as initial syllable had received the chief accent in Germ., this 'ə' became 'a' and fell together with 'a' of the present in the 'a-' series: Goth. 'skabans' in analogy with 'skaba.' Thence it was transferred to all verbs with 'a' in the pres.: Goth. 'fara,' 'farans'; 'haita,' 'haitans'; 'auka,' 'aukans'; 'halda,' 'haldans.' In the last three classes the pret. co-operated with it. The 'ē-' and 'ō-' series joined the sixth ablaut-series ('skaba,' 'fara') in levelling the past part. with the pres., because they shared with it the likeness of the root-vowel in the sing. and plu. pret.: Goth. 'lēta,' 'lētans'; 'ƕōpa,' 'ƕōpans.'

In the 'e-' series the four first ablaut-series show regular forms with vanishing grade: Goth. 1 'stigans' (ascended), 2 'budans' (bidden), 3 'bundans' (bound), 'waúrþans' (become), 4 'stulans' (stolen), 'baúrans' (borne). The last two forms are to be explained by Ind.-Germ. *'stl̥nós,' *'bhr̥nós.'

When, on the other hand, a radical 'e' between a spirant and a stop had changed through Ind.-Germ. 'ə' into 'a' in Germ., this 'a' quite dropped out of the system of the 'e-' series, and thus the vowel of the pres. was also here introduced into the past part. after the example of the 'ē-' series especially: Goth. 'giba,' 'gibans' (from *'geba,' *'gebans'; cf. O.H.G. 'gebamēs' "we gave," 'gigeban'). Less adapted for the system (that of the 'e-' series) were parts. with roots which had liquids or nasals before and spirants or stops after the

'e' and in which therefore 'ul,' 'ur,' 'um,' 'un' had to develop by the side of 'le,' 're,' 'me,' 'ne,' hence they also received the 'e' of the pres.: Goth. 'lisa' (I gather), 'lisans' (O.H.G. 'lesamēs,' 'gilesan').

The other dialects have the forms corresponding to Goth.; in these 'u,' except before nas.+cons., suffered 'a-' umlaut: thus O.H.G. 'gibotan,' 'wortan,' 'giboran,' but 'gibundan.' '-in-' from '-eno-' (cf. Prim. O.N. 'haitinaR,' and forms with 'i-' umlaut like O.E. 'cymen') was weakened as a suffix in O.E. and O.N. to '-en-' and spread everywhere, but '-ono-' which interchanged in declension with '-eno-' carried out '-a-' umlaut: O.N. 'boðenn,' 'vorðenn,' 'borenn,' O.E. 'boden,' 'worden,' 'boren.' On the other hand, the 'a-' umlaut of 'i' has never taken place in the 'ei-' series in consequence of the forms with '-in-': O.H.G. 'gistigan,' O.S. 'stigan,' as well as O.E. 'stigen,' O.N. 'stigenn.'

D. Infinitive

In the individual languages infinitives arose in those cases in which certain cases of certain verbal substantives took over the government of their verb. Germ. only knew a pres. infin. act. which sprang from an acc. sing. of a neut. in '-no-.' Thus to the O.Ind. 'bháraṇam' (the carrying) correspond Goth. 'baíran' (carry, carrying), O.N. 'bera,' O.E., O.S., O.H.G. 'beran' (Ind.-Germ. *'bhéro-no-m').

As 'beran' shows, the thematic verbs added '-no-' to the thematic vowel '-o-.' The 'ā-' class added it to 'ā-': Goth., O.H.G. 'salbōn,' O.N. 'kalla.' O.E. has '-i̯o' here: 'sealfian' from *'sealfoian,' which explains O.S. 'salb̆oian' by the side of 'salb̆on.' Goth.

has replaced '-ōn' by '-an' in the case of the inchoatives: 'waknan' in analogy with 'waknand,' 'waknands.' The '-ēi̯-' verbs regularly show '-ē-n' in O.H.G. e.g. 'habēn,' while Goth. 'haban' again shows connection with 'haband,' 'habands.' O.E. 'habban' for *'hebban' from *'hebbian' as well as O.S. 'hebbian' show the 'i̯o-' suffix which has here spread over the similar forms as in the 'ā-' class. O.N. 'hafa' has preserved the general infin. ending '-a' for '-e' from '-ēn.'

4. PERSONAL ENDINGS

Both in the act. and in the middle voices there were two kinds of endings in Ind.-Germ., primary and secondary, the former of which as compared with the latter were variously characterised by a final '-i.' Of the forms retained in Germ. only the pres. indic. had primary endings; while only the aor. indic., the indic. as subj., the whole opt. and the dual and plu. of the perf. indic. had secondary endings. The sing. perf. indic. act. had its own endings.

A. Active

(*a*) *Singular*

(*a*) *First Person*

In the pres. indic. in Ind.-Germ. only the athematic verbs had here the primary ending '-mi'; the thematic verbs had no ending, but they lengthened the thematic vowel 'o' instead: Gk. εἰμί, but φέρω. This corresponds to the relation of Goth. 'im,' O.N. 'em,' O.E. 'eom,' O.S.

'bium,' O.H.G. 'bim' (with 'b-' from the Ind.-Germ. root *'bheu̯' = become) to Goth. 'baíra,' O.N. 'ber,' Angl. 'beoru,' O.S., O.H.G. 'beru.' '-mi' is also the source of the '-m' in the athematic verbs of O.H.G. such as 'habē-m' and 'salbō-m' and of '-n' in O.S. 'salbo-n.'

The aor. indic. in particular was formed in Ind.-Germ. by means of the secondary ending '-m': O.Ind. 'á-bhara-m' = Gk. ἔ-φερο-ν. This '-m' has disappeared in O.E. 'dyde' (I did), O.S. 'deda,' O.H.G. 'teta'; also in the weak pret.

The perf. indic. had '-a': O.Ind. 'rirēca' = Gk. λέλοιπα. In Germ. '-a' was dropped: Goth., O.N., O.H.G. 'bar' (I bore, carried), O.E. 'bær.'

(β) *Second Person*

The Ind.-Germ. primary ending was '-si': Gk. ἐσ-σί. If the accent lay on the root-syllable, '-z' was produced in Germ.; but if the accent lay on the thematic vowel or on the present suffix ('-ā-,' '-ēi,' '-nāi-'), s remained. In W.Germ. '-s' has been established throughout, in Prim. O.N. '-z': in Goth. '-s' is ambiguous: O.E. 'bires' (thou bearest, carriest), O.S., O.H.G. 'biris,' O.N. 'berr,' Goth. 'baíris.'

The Ind.-Germ. secondary ending was '-s': Gk. ἔ-φυγε-ς. In Germ. '-s' and '-z' are not distributed according to the Ind.-Germ. system of accentuation. Probably '-s' and '-z' were first indiscriminately used in the pres. opt. where '-z' would necessarily arise in the root-accented thematic verbs and '-s' in those accented on the thematic vowel; this double use was then extended to the 2 pers. everywhere and levelled after this in different

ways. As '-s' and '-z' in Goth. fell together as '-s,' all Goth. forms are ambiguous. In the pres. opt. the '-z' gained the ascendancy in O.N. and O.E. and the '-s' in O.S. and O.H.G.: Goth. 'baírais,' O.N. 'berer,' O.E. 'bere,' O.S. 'beres,' O.H.G. 'berēs.' It is certain that to influence from that source is due the fact that the pret. opt., which should always have '-s,' shows like dialectical distribution: Goth. 'bēreis,' O.N. 'bærer,' O.E. 'bære,' O.S. 'bāris,' O.H.G. 'bārīs.' Nearly corresponding to the geographical distribution of these forms and similar to that in the pres. indic. is the fact that O.N. shows '-z' in the indic. of the weak pret. and that only W.Germ. has the '-s,' that should be expected: Goth. 'salbōdēs,' O.N. 'kallaðer,' O.E. 'sealfodes,' O.S. 'salƀodos,' O.H.G. 'salbōtōs.' Also in the W.Germ. pret. indic. of strong verbs 'z' for 's' is presumably to be explained in the case of O.E. 'bære' by geographical distribution, but in the case of O.S., O.H.G. 'bāri' perhaps by a certain influence of the pret. presents, where in the opt. '-s' stood from the earliest period; in the '-t' in the indic., however, there was at all events a difference from the opt.

The perf. had '-tha' in Ind.-Germ.: O.Ind. 'rirēcitha,' Gk. οἶσθα. In Germ. '-tha' became 't' after 's,' 'h,' 'f': O.E. 'dears-t' (darest), O.H.G. 'gitarst'; Goth. 'last' (didst gather); O.N. 'mátt' from *'maht' (canst), O.E. 'meaht,' O.S., O.H.G. 'maht'; Goth., O.N. 'þarft' (needest), O.E. 'ðearft,' O.S. 'tharft,' O.H.G. 'darft.' From these '-t' became general in P.Germ.: Goth., O.N. 'skalt' (shalt), O.E. 'scealt,' O.S., O.H.G. 'scalt.' Germ. 'þ' from Ind.-Germ. 'th' is only preserved in the O.E. pret. pres. 'earð' (art), which had become connected with forms from another root ('béo' = am,

'biδ' = is) and had thus gone further from the other pret. presents; still 'eart' is also found here.

(γ) *Third Person*

The Ind.-Germ. primary ending was '-ti': O.Ind. 'ás-ti,' Gk. ἐσ-τί. '-δ' was produced in Germ. when the root-syllable was accented, '-þ' when the accent was on the thematic vowel or present suffix; the 'δ' was established throughout in Goth. where it had to be '-þ' finally, but later it was written 'd' as well as in O.H.G., where it passed into 't' through 'd'; the 'þ' (written 'δ'), on the other hand, remained in O.E.; in O.S. '-d,' '-t' from '-δ' is found, but also 'δ' from '-þ': Goth. 'baíriþ' (carries), O.E. 'bireδ,' O.S. 'birid' ('-t,' '-δ'), O.H.G. 'birit.'

The Ind.-Germ. secondary ending was '-t': Lat. 'era-t,' O.Lat. 'siē-t' (he may be) = O.Ind. 'syā́-t.' In Germ. '-t' necessarily disappeared: pres. opt. Goth. 'baírai,' O.N., O.E., O.S., O.H.G. 'bere'; perf. opt. Goth. 'bēri,' O.N., O.E. 'bǽre,' O.S., O.H.G. 'bāri.'

In the Ind.-Germ. perf. the ending was '-e': O.Ind. 'rirḗca,' Gk. λέλοιπε. In Germ. the '-e' when directly final disappeared at a time before unaccented 'e' became 'i.' Hence always like 1 sing.: Goth. O.N., O.S., O.H.G. 'bar,' O.E. 'bær.'

(b) *Dual*

(α) *First Person*

The Ind.-Germ. primary ending was '-u̯es': O.Ind. 'bhárāvas' (we two carry). From Ind.-Germ. '-ō-u̯es' (beside '-o-u̯es') arose Germ. '-ō-u̯iz' > '-ōu̯z' > '-ōz' > Goth. '-ōs': 'baírōs.'

The Ind.-Germ. secondary ending was '-u̯e': O.Ind. 'ábharāva' (we two carried). The '-u̯e' became '-u' in Germ.: Goth. 'magu' (we two can), a pret. pres. By the side of this was the lengthened grade '-u̯ē,' whence Goth. '-wa' in the opt.: 'sitaiwa' (we two may sit).

(β) *Second Person*

The Ind.-Germ. primary ending was '-thes': O.Ind. 'bhára-thas' (you two carry). In Goth. '-ts' appears for this: 'baírats.' Also as secondary ending there is only '-ts': 'gasēƕuts' (you two saw), 'wileits,' really opt. (you two will). The '-u-' of '-uts' is due to assimilation with the perf. plu. (Goth. '-um,' '-uþ,' '-un'). The 'th' of '-thes' became 't' after 's,' labials and gutturals (thus in 'st,' 'ft,' 'ht') and then penetrated everywhere (cf. p. 165).

(c) *Plural*

(α) *First Person*

The Ind.-Germ. primary ending was '-mes': O.Ind. 'bhárāmas' (we carry), Dor. φέρομες. In Germ. '-s' became '-z,' and 'e' disappeared, then '-mz' produced '-mm,' '-m' (as in the dat. plu.): Goth. 'baíram,' O.N. 'berom.' Also Ind.-Germ. '-mesi': O.Ind. 'bhárāmasi'; the form in the lengthened grade '-mēs' appears in O.H.G. 'beramēs,' in which the '-s' is to be explained from the accent being on the plu. personal ending in the athematic verbs.

The Ind.-Germ. secondary ending was '-men': Gk. ἐφέρομεν. In Germ. '-men' became '-m' through '-mn. Thus in the pret.: Goth. 'bērum,' O.N. 'bǫ́rom,' O.H.G.

'bārum.' Also Ind.-Germ. '-mē': Lith. 'sūko-mē-s' (we turned or twisted ourselves) as well as 'sūkome' (we turned or twisted). This is the basis of the Goth. opt. '-ma': pres. 'baíraima,' pret. 'bēreima.' O.N. and O.H.G. also have '-m' here: O.N. 'berem,' 'bǽrem,' O.H.G. 'berēm,' 'bārīm.'

(β) *Second Person*

The Ind.-Germ. primary ending '-the' (O.Ind. 'bháratha,' "you carry") and secondary '-te' (O.Ind. 'ábharata' = Gk. ἐφέρετε) fell together in Germ. as '-þe,' which developed into '-ðe' when the root was accented. The '-ð' which thus arose has penetrated everywhere: Goth. 'baíriþ' (you carry), 'baíraiþ' (you may carry), 'bēruþ' (you carried), 'bēreiþ' (you might carry), 'salbōþ' (you anoint); that '-þ' in these cases stands for '-ð' only is proved by such forms as 'qiþid-uh' (you say yes); similarly is 't' always found in O.H.G. For this reason O.N. '-ð' in this case is also to be taken as Germ. 'ð.'

(γ) *Third Person*

The Ind.-Germ. primary ending was '-nti': O.Ind. 'bháranti' (they carry), Dor. φέροντι. From this '-nði' was produced in Germ., when the root-syllable was accented, and '-nþi' when the accent was on the thematic vowel or present suffix; '-nði' is preserved in Goth. 'bairand,' O.H.G. 'berant'; '-nþi' in O.E., O.S. 'berað,' wherein 'n' has disappeared before 'þ' (cf. Goth. 'munþs,' "mouth," O.E. 'múð,' O.S. 'mūð'). In Nor. the '-i' of *'beranði' or *'beranþi' was dropped very early, being in a third syllable, the spirant after the 'n' then followed, so that

*'beran' arose already in Prim. O.N., whence O.N. 'bera' (cf. infin. 'bera' = Goth. 'baíran').

The Ind.-Germ. secondary ending was '-nt' : Lat. 'ferēbant.' The '-t' was dropped in P.Germ.; '-n' stands after a vowel, thus in the pres. opt. O.E., O.S., 'beren,' O.H.G. 'berēn,' O.N. 'bere' (from *'beren') and in the pret. opt. O.E. 'bǽren,' O.S. 'bārin,' O.H.G. 'bārīn,' O.N. 'bǽre' (from *'-bǽren'). Goth. has added an '-a' to this '-n' in analogy with the 1 plu. '-ma' : 'baíraina,' 'bēreina.' After a cons. Ind.-Germ. '-nt' necessarily became '-n̥t,' which developed into '-un' in Germ.: hence in the pret. indic. Goth. 'bērun,' O.N. 'bǫ́ro,' O.E. 'bǽron,' O.S., O.H.G. 'bārun.' (This is also the explanation of the 'u' in '-um' in 1 plu.; that in '-uþ' in the 2 plu. is due to analogy.)

B. Middle

In Goth. only those middle personal endings are preserved which originated in the Ind.-Germ. primary ending in '-ai' and secondary in '-o,' and which, however, resembled one another in their consonants. Thus 2 sing. Ind.-Germ. primary '-sai' (Gk. φέρεαι from *φέρεσαι, O.-Ind. 'bhárasē'), secondary '-so' (Gk. ἐφέρεο from *ἐφέρεσο, O.Bct. 'baraē-ša'), 3 sing. primary '-tai' (Gk. φέρεται, O.Ind. 'bháratē'), secondary '-to' (Gk. ἐφέρετο, O.Ind. 'ábhara-ta'), 3 plu. primary '-ntai' (Gk. φέρονται, O.Ind. 'bhárantē'), secondary '-nto' (Gk. ἐφέροντο, O.Ind. 'ábharanta'). The Germ. endings presuppose an accented root-syllable everywhere. In the opt. 'au' has taken the place of Ind.-Germ. '-o' through the influence of the original middle imperative forms in '-au' (cf. p. 159). 3 sing. 'baíraidau,' 3 plu. 'baíraindau' and in analogy with it also 2 sing. 'baíraizau.' In the indic. '-ai' necessarily

became '-a' in a third syllable: hence 3 plu. 'baíranda.' In the 2 and 3 sing. we should expect 'i' in Goth., (Ind.-Germ. 'e') as thematic vowel, but as there was an exact resemblance between the middle forms of the indic. and opt. up to this vowel, and as the thematic vowel 'a,' which was retained throughout in the opt., already stood in the plu. indic. it was introduced into the sing. also: hence 2 sing. 'bairaza,' 3 'baírada.'

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